

(22,889.)

SUPREME COURT OF THE UNITED STATES. OCTOBER TERM, 1911.

No. 813.

ROBERT P. ALLEN, GEORGE W. BELLAMY, AND WILLIAM F. McKNIGHT, RAILROAD COMMISSIONERS OF THE STATE OF ARKANSAS, APPELLANTS,

228.

THE ST. LOUIS, IRON MOUNTAIN & SOUTHERN RAILWAY COMPANY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF ARKANSAS.

VOLUME II.

INDEX.

		Original	Print
Ev	idence for defendants—Continued.		
	Testimony of R. E. Kimbell (recalled)	2476	997
	T. F. Wharton	2484	1000
	Herbert C. Whitehead		1075
	W. E. Fitz Gerald	2660	1080
	Henry Willmering (recalled)	2725	1111
	R. D. Parker.	2829	1161
	C. B. Bee	2861	1176
	Charles S. Ludlam	3145	1309
	Maurice Wright	3310	1383
	T. F. Wharton (recalled)	3345	1400
	T. A. Hamilton		1402
	Conway C. Hillman	3524	1479
	T. A. Hamilton (recalled)	3621	1524
	T. F. Wharton (recalled)	3784	1599
	J. M. Johnson		1603
	Fred P. Johnson (recalled)	3808	1611

INDEX.

	Original	Print
Stipulation of counsel as to monthly statements of Chicago, Rock		
Island & Pacific Railway Company	3810	1611
Testimony for complainant in rebuttal	3811	1612
Testimony for complainant in reductation	3811	1612
Testimony of R. H. Laing. C. E. Perkins.	3827	1619
C. E. Perkins	. 3938	1672
J. D. Watson	3987	1695
M. L. Byers		1726
W. H. V. Rosing		1769
H. B. Aumocek		1773
B. W. Moore		1795
John Cannon		1803
H. V. Brown		1809
W. L. Seelig.		1812
Frank Nay		1853
F. E. Ware		1893
Carl R. Gray		1973
Hubert Roth		1981
Fred P. Johnson (recalled)		2012
Frank Nav (recalled)	4000	2012
Hubert Roth (recalled)	4/10	2076
R. E. Kimbell	4780	2076

VOLUME II.

No. 813.

ROBERT P. ALLEN et al.

VS.

THE ST. LOUIS, IRON MOUNTAIN & SOUTHERN RAILWAY COMPANY.

2476 R. E. Kimbell, being recalled by the defendant, further testified as follows:

Redirect examination.

By Mr. HILL:

Q. Mr. Kimbell, are you ready to make your report to the

Master that he called for yesterday?

A. I stated yesterday in answer to your request, Judge Hill, that the information could be worked up, but that I disliked to do it on account of the labor involved. I find upon making an estimate of the labor, that it will require something like a month's time for a competent clerk to work the information up. I think it is pertinent to say here now that we have been always willing and ready to work up everything you wanted. In fact, this Exhibit A you put up was worked up at your request, at very heavy expense to us—

The MASTER: Well, never mind about that part of it, Mr. Kimbell. This is contained in the record of the railroad company—the Southwestern?

A. Yes, sir.

2477

The Master: Those records are open for all the purposes of this examination, under the order of the Court. I do not think it would be doing justice to the railroad company, or to the witness here, to require him to produce that record. I think, Judge Hill, if you want that information you asked for that you should take the laboring oar and get it.

Mr. Hill: I felt like the laboring oar was on them. They put in half of the proposition; they ought to be required to

put in the other half of it.

The MASTER: They really were not required to put in that.

Mr. Hill: They did that voluntarily. I did not ask them to put in that. Mr. Kimbell has been very courteous about furnishing information we have asked. But this exhibit I am calling for now is his own testimony, put in to show certain facts, which he thinks is important, which he admits is one side of it, and when that is done, it seems to me it is his duty to put in the other side of it to get it in full.

64 - 813

The Master: I will not require Mr. Kimbell to go into that work.

Mr. Hill: Mr. Moore, I called for this contract yesterday, and I am willing for Mr. Kimbell just to state what it is instead of putting in the paragraphs.

Mr. Moore: Are you sufficiently familiar to do that, Mr. Kem-

bell?

Mr. KIMBELL: Yes, sir.

Mr. Hill: Now, Mr. Kimbell, without going into the details, I want none of the details, but I want generally speaking the arrangement between the St. Louis-Southwestern and the Iron Mountain as to the leased tracks from Paragould to the Missouri State line?

A. Prior to January-

The MASTER: The record will show that that is done by 2478 contract.

A. Prior to July 1st, 1909, under the terms of this contract, the St. Louis, Iron Mountain and Southern Railway was accorded trackage rights over the rails of the St. Louis-Southwestern Railway between Dexter, Missouri, and Paragould, Arkansas, the compensation being forty cents per train mile. As I have stated, prior to July 1st, 1909, that, in substance, was the entire agreement.

Subsequent to July 1st, 1909, the track was placed on, what is known in railroad parlance, as a joint track basis, which provides for the St. Louis, Iron Mountain & Southern Railway paying the St. Louis-Southwestern a rental on an arbitrary basis and paying its proportion of the expenses of maintenance and operation on the car

mile basis.

Mr. Hill: How were the expenses of maintenance and operation

apportioned prior to this change?

A. The St. L. S. W. Ry. received compensation at the rate of forty cents per train mile. Under the rules of the Interstate Commerce Commission carriers are required to sub-divide amounts received for trackage of that character between rentals, maintenance, operation and general administration. No fixed basis is prescribed by the Commission, and the railroads are at liberty, under their rules, to divide that amount on such basis as they may consider equitable. The St. Louis-Southwestern Railway credited fifty per cent of this amount

to rentals and the balance to maintenance and operation.

Did it make any further apportionment of that fifty per cent from maintenance or construction, or just credit it gener-

ally to that?

A. It is credited in proportion a part to maintenance of the way and structures, a part to conducting transportation, a part to general administration.

Q. On what basis is that maintenance of way and maintenance of

equipment proportioned?

A. It is a purely arbitrary basis, determined by our company in a way which we think is as fair distribution of it between those accounts as possible. I do not recall just exactly what the percentage is now. I believe it was credited fifteen per cent to maintenance of

way and structures, probably fifteen to conducting transportation and the balance to administration. There is a sub-division there which I do not recall off-hand.

Q. Well, I just want to get at it generally. You sub-divided it into these various amounts according to what you thought would be proper to each? A. Yes, sir.

Q. Now since you have made this change you have changed that basis also?

A. Yes, sir.

Q. Now how do you apportion it since the change?

A. The amount paid by the Iron Mountain as rentals is 2480 credited to income as a rental receipt. The amount paid by the Iron Mountain for its proportion of maintenance and operation is credited to the several operating accounts in about the same ratio we formerly used it.

Q. I believe you said you ascertained that on a car mile basis? A. We ascertained the division upon the Iron Mountain and the

Cotton Belt, but not the sub-division upon the operating account. Q. Now the sub-divisions between the operating account you apportioned on what you considered a fair basis?

A. Purely arbitrary.

Q. Between the two railroads it is apportioned on the car mile basis?

A. Yes, sir.

Q. Now, Mr. Kimbell, what traffic is covered by the Iron Mountain Railroad by that leased line in Arkansas?

A. That I could not say, Judge. We have no detail of that traffic Our record reports-Q. I am referring to under that contract what traffic may they

carry?

A. They are entitled under the contract to carry through traffic only. If, however, in the performance of their duties as a common carrier they are required to handle any local traffic on receiving seventy per cent of the local tariff.

Q. Has that occurred?

A. No, sir, not that I know of, I don't know any single 2481

Q. They have handled only through traffic? A. Yes, sir.

Q. Only through freight traffic?

A. That is all.

Q. No passenger trains? A. None whatever.

Q. You pay the taxes I believe?

A. We pay the taxes and charge them one-half.

Q. I presume there were taxes taken care of on that just like other taxes?

A. Yes, sir.
Q. No difference in handling the taxes on this leased road to the Iron Mountain than-

A. We pay the taxes. It is our property absolutely; charge them one-half.

Q. When you pay their taxes what do you do with them?

A. That is treated under the itemization as a rental property, just the same as a rental income I assume, not credited to taxes.

Q. And you pay the whole taxes, and as far as the tax account shows you get no credit, but you carry that into another account? A. Into an income account.

Q. What is the mileage in Arkansas of that line?

2482 A. Thirty-six miles.

Recross examination.

By Mr. MOORE:

Q. When was the change made in the terms of the contract?

A. July 1st, 1909.

Q. Prior to that time were the taxes divided? A. No, sir.

Q. All paid by the-

- A. All paid by the St. Louis-Southwestern. Its compensation was the amount of forty cents a train mile, covered all that was paid by the Iron Mountain.
- Q. Expressly excluded any additional charge by the way of taxes or otherwise?

A. Yes, sir.

Q. And that was the condition prior to July 1st, 1909?

A. Yes, sir.

Q. I believe you said only freight cars are moved over this line? A. By the Iron Mountain,

Q. I mean by the Iron Mountain.

A. That is correct so far.

Q. And this basis of charge applies simply to the freight cars?

A. Yes, sir.
Q. Not to passenger and mail and express? 2483 A. They have the right-

Q. I am speaking about what is actually transported over it?

A. We have not been handling any passenger trains as I know of.

Q. Do not and never have for them?

A. No, sir.

2484 T. F. Wharton, a witness of lawful age, being duly produced, sworn and examined on the part of the defendant, testified as follows:

Direct examination.

By Mr. HILL:

 Q. Please state your name, age, residence and occupation?
 A. T. F. Wharton; 40 years of age; residence, St. Louis; occupation, Public Accountant.

Q. What is your business?

A. At the present time I am Manager of the St. Louis office of Haskins & Sells, Certified Public Accountants.

Q. What is the business of Haskins & Sells?

A. It is the business of public accounting, which includes auditing, the preparation and installation of systems of accounts, and all work related to those two classes of business.

Q. Does that firm do railroad accounting?

A. Yes, sir, a great deal of railroad accounting.
Q. Is that a firm that has an extensive business? Explain without going too much into detail, the general nature of the business of Haskins & Sells and where they have offices?

2485 A. The firm of Haskins & Sells have their main office in New York City and have other offices in Chicago, St. Louis,

Cleveland, Pittsburg and in London.

Q. How long have you been connected with the firm of Haskins & Sells?

A. Since January 1, 1902.

Q. How long have you been an accountant?

A. Well, I have only practiced the profession of public accounting since that date. Prior to that time I had done more or less municipal work, but no work aside from municipal work to speak of.

Q. What do you mean by municipal work?

A. Municipal accounting matters relating to the municipality and all kinds of municipal work.

Q. Have you been continuously engaged in the business of accounting since 1902?

A. Yes, sir, with the firm of Haskins & Sells.

Q. Have you had any railroad experience as a practical railroad

man in any way?

A. No, sir, my only railroad experience has been that secured in the Missouri and Arkansas Rate Cases, aside from just some work that would not amount to anything.

Q. Work has been that of an accountant entirely, so far as it

touches these questions?

A. Yes, sir.

Q. You referred to the Missouri Rate Case: what connec-

tion did you have with that?

A. Well, the work undertaken in Missouri was undertaken by the St. Louis office of Haskins & Sells of which I had charge at that time, and I was connected with that case all the way through, although I did not testify in that case or take the close interest that I have in this case.

Q. I wish you would state just generally what the issues were in

that Missouri Rate case?

A. The issues in the Missouri Rate case were very similar to those

in this case, with this exception:

In Missouri, the Legislature in 1905 and again in 1907 passed a maxmum freight rate law which fixed maximum freight rates on special commodities named in the law.

The railroad companies enjoined the enforcement of that law and it was on their application for permanent injunction that the issue

was raised. The same thing applied to passenger fares also in that case. It was a legislative act fixing the rate at 2 cents a mile. It was also attacked by the railroads and the fight in that particular was the same as in Arkansas.

Q. Were there issues in that case as to the separation of property

and business between state and interstate, traffic?

A. Yes, sir, just the same as in the Arkansas case. The question of the state and interstate business and the division of property and expenses between those two classes of business, both freight and passenger.

2487 Q. Did you give that question study, thought and investi-

A. Yes, sir.

Q. How long were you engaged on the Missouri Rate case, Mr. Wharton?

A. I believe we started our work on that in June, 1906, and we were engaged on that, I believe, for almost three years. I am not sure as to the exact time, but it was something like that.

Q. During that time were you closely in touch with the issues

in the case?

A. Yes, sir, all the time.

Q. And you are familiar with the methods of operation and expenses adopted by the railroads and adopted by the state in that case?

A. Yes, sir.

Q. Was your firm employed by the State of Arkansas in this case?

A. Yes, sir.

- Q. State the purpose of your employment by the state of Arkansas in this case?
- A. The purpose of our employment was to assist the state in getting at the facts in the case as near as possible, in determining the cost of state and interstate business as near as it could be determined.

Q. When did your firm begin to work for the state in

2488 this case?

A. In August, 1908, we were employed by the Traffic Bureau at Little Rock to assist the state in its efforts to resist the granting of the preliminary injunction.

Later we were employed by the state itself to do the work.

Q. By the Railroad Commission acting for the state?

A. Yes, sir.

Q. Do you recall about what time you were employed by the Railroad Commission to undertake this work that you have been continuously engaged in since?

A. I think about last June, May or June, was the time.

Q. Now, Mr. Wharton, begin at that point when you were employed by the state to begin this investigation and state the history and methods pursued by you, giving the reasons for the methods that you did pursue?

A. In our first consultations with the railroad commission and with the counsel for the state we discussed at considerable length the

plans that had been followed in the Missouri Rate Case, and the

plans that we thought might be worked out in this case.

The Railroad Commission and its counsel both desired to get at the actual facts, if possible, without the use of any theories of any kind and we went to work with that in view, from the reading of the testimony in the Missouri Case and from—

2489 Mr. Moore: It does not seem to me that this is competent testimony—the statement of the methods pursued, in the discussions and conferences among the members of this firm Haskins & Sells and the representatives of the state as to the course to be pursued by them in this case.

The Master: I suppose the object of that statement is to show the opportunities that the witness has had for acquiring facts and in-

formation in this case.

Mr. HILL: Yes, sir.

The Master: I will let him go on and state that but not state anything hearsay from the Missouri case in this connection.

Mr. MOORE: I want it to be understood that I am objecting to it.

The Master: Certainly, the record will so show.

The Witness: From the reading of the testimony in the Missouri case and my understanding of the purport of that testimony, it appeared all the time that the differences in the cost of state and interstate business were mainly the differences in the cost of local and through trains.

The witnesses all seemed to testify that way and we determined that if it was possible we would work up statements showing the cost of local and through business and after getting that cost, we would ascertain in the best manner possible the cost of state and interstate business carried in the two classes of service; in that way getting

away from any question of theory, but getting down to an application of the facts and of the testimony given in that case, and subsequently given in this case.

Mr. HILL:

A. The first thing that was necessary was to ascertain the movement of freight on local and through trains; also the car miles, engine miles, the train miles, and all such statistics in reference to the movement of freight on local and through trains, in order that the expense could be properly apportioned between the local and the through service and in order that the cost of that service might be apportioned between the state and interstate business moved in the two classes of service.

Q. How did you proceed to carry out those plans?

The Cotton Belt road had prepared statistics of that kind in a

test they made in the month of October, 1908.

On the Iron Mountain it was necessary for us to prepare most of our own figures in that particular. The railroad company had prepared a statement showing in full detail the movement of freight during the month of October, 1907, and we—

Mr. Hill: I want to identify that now, Mr. Wharton. It is marked Exhibit 26.

A. We did not work up the entire movement of all freight on all trains during that month but we worked up the movement of all freight on all of the local trains on the Iron Mountain

2491 during that month and having that and the total movement of freight, the difference between the two was the movement on the through trains during that month.

Q. As I understand you, then, you accepted the Iron Mountain figures as to the total movement of the freight during the month of

October, 1907, as shown in their Exhibit No. 26?

A. Yes sir.

Q. And started with that as your beginning point and then segregated the two classes of traffic by ascertaining the actual movement on all the local trains in the State of Arkansas during that month, was that it?

A. Yes, sir; that is correct.

Q. Do you mean the Iron Mountain in Arkansas and not the entire system?

A. Yes, sir, the Iron Mountain in Arkansas.

Q. Mr. Wharton, explain the method of working up that, without going into detail. I understand Mr. Hamilton knows that better than you do, but explain the plan and how it was carried out.

A. The detail I am not familiar with.

The plan of the work was to take the wheel reports, list of the car numbers, and get the way-bills, I believe, showing the freight moving in those cars.

Q. You mean from the records of the Iron Mountain Com-

pany?

2492 A. Yes, sir, it was all worked up from the records of the Iron Mountain Company.

Q. Just explain what records and where you found that?

A. I would rather have Mr. Hamilton do that. I made up the plan.

Q. That plan was carried out by others, under your general direction and co-operation?

A. Yes, sir.

Q. Now, Mr. Wharton, have you that statement as worked up?

A. Yes, sir.

Q. I wish you would present it and file it as Exhibit "I."

Whereupon the exhibit just referred to is marked "Defendant's Exhibit I" and is in the words and figures as follows to wit:

For Exhibit "I," see Volume 9, page 5787.

2493 Q. Mr. Wharton, please take that Exhibit I and explain it?

A. The first column in Exhibit I, the one marked "local trains" contains the statistics worked up by us under Mr. Hamilton's personal direction. The last column marked "total" contains the total statistics shown in Exhibit 26 and in some of the other exhibits

filed in this case,-I will take the last part of that out-some of

these are not shown in the exhibits in the case.

All of the figures in the "total" column were obtained from the books and records of the St. Louis, Iron Mountain and Southern Railway Company, except the percentages and averages worked out.

Q. The totals there of ton miles were taken from Exhibit 26?
A. Yes, sir, from Exhibit 26, the mileage statistics as to car miles, caboose, engine and train miles, were taken from the records of the railway company for that month.

Q. Now proceed with your explanation of it.

A. The second column marked "through trains" is the difference between the column marked "local trains" and the one marked "total," with the exception, of course, of the percentages and averages, which were worked out from the figures in those columns.

The first section of the statement shows the ton miles of freight carried during the month of October, 1907, divided between

local trains and through trains.

Following that we have the ton mileage of each class of freight expressed in percentages.

Following that are mileage statistics and other statistics as to train

movement and car movement.

Q. Mr. Wharton, I wish you would state what you found in that test of the loading of the local trains as between state and interstate, expressed in percentages?

A. We found from that that the loading of the local trains was 71.49 per cent interstate, and 28.51 per cent state, based on the ton

miles carried.

Q. What was the loading of the through trains?

A. The through trains were loaded 94.41% interstate and 5.59% state.

Q. What did you do with the company freight in that case?

A. We originally worked up some statistics on the company freight but finally excluded them from this statement.

Q. This is the revenue freight?

A. This is simply revenue freight. My recollection of the company freight is that a larger proportion, in proportion to the total freight handled, is handled on local trains than on through trains.

Q. I see you have here "Number of cars handled in and out of terminals where yard engines are maintained:" I wish you would

explain those figures?

2495 A. The instructions in relation to working up the cars handled in and out of terminals by local and through trains were that the wheel reports were to be taken and the total cars shown by that wheel report as going into the terminal were to be accounted as going in and the total going out of that terminal was to be accounted as going out. The figures are made up in that way classifying the wheel reports as between local and through.

Q. Now, Mr. Wharton, having obtained statistics as shown on Exhibit I, what was your next step in trying to get at the actual

expenses between state and interstate?

A. After having obtained these statistics we worked up the operat-

ing expenses with more or less detail, for the six months ending December 31, 1907, and made a division of those expenses as between local and through train service so far as they are train expenses, and as between intrastate and interstate as far as they-

Q. Where did you get the expenses you were working up? A. From the books of the railroad company.

Q. Are those expenses shown in your exhibits here?

A. They are shown in detail, I guess, the freight and passenger together,—the detail is shown in one of Mr. Johnson's exhibits.

Q. You started with the details which are represented in these

exhibits?

A. Yes, sir.

2496 Q. You had better give me the number of that exhibit.

A. It is statement 4 of Exhibit 3 and shows the total

operating expenses in Arkansas, both freight and passenger.

We worked up the freight or passenger side of those expenses, I have forgotten which—the passenger side of those expenses, all the way through and agreed them in total with the total passenger expenses shown on the second page of Exhibit No. 3, where the expenses are divided between freight and passenger business under the heads of "Maintenance of way and Structures;" "Maintenance of Equipment;" "Traffic Expenses;" "Transportation Expenses:" "General Expenses;" "Hire of Equipment;" "Dining Car service;" "Taxes;" and "Rentals."

Our object in working up the details was to make such a separation of that as we thought necessary in dividing the expenses as

between local and through service.

Q. That was on the passenger side you have been telling of?

A. We worked the total of the passenger side and subtracted it from the total shown by this statement in order to get the freight

Q. What do you mean by "this statement?"

A. Statement 4 of Exhibit 3.

Q. Then how did you proceed with your working up of the freight?

A. You mean the division of freight expenses?

2497

Q. Yes.
A. In answer to that I will file this exhibit as "Exhibit J," which shows the division of operating expenses between local and through train service.

The paper just referred to is marked "Defendant's Exhibit J" and is in the words and figures following to-wit:

For Exhibit "J", see Volume 9, page 5790.

2498 Q. You are referring to the freight?

A. Yes, sir, freight operating expenses divided between local and through train service and state and interstate business.

The methods followed in arriving at the figures shown in that exhibit are explained on these sheets attached to Exhibit J, and which I will file as "Exhibit K." This exhibit consists of eight pages.

The paper last referred to is marked "Defendant's Exhibit K" and is in the words and figures as follows to-wit:

For Exhibit "K," see Volume 9, page 5792.

Q. Mr. Wharton, I do not suppose I can have you explain that any better than you have already explained it in that exhibit?

A. I don't think so.

Q. If there is any detail that is not in that exhibit, that you think of, I would be glad for you to explain it. I think it is as good an explanation as you can make without adding any other statement.

A. It was intended to cover a full explanation of everything going

into Exhibit J, freight division of expenses.

Q. I will now take up that exhibit K, Mr. Wharton, and ask you

regarding some of the matters you have used there,

I see that under "Maintenance of Way and Structures" you say, "The proportion of these expenses applicable to the freight business, as shown by the statement in this case submitted by the Company, has been divided between local and through train service on the basis of the total engine and car miles of each class, during the month of October, 1907, that month being considered representative of the business for the six months ended Dec. 31, 1907."

Why did you divide that between local and through on the basis

of the total engine and car miles?

A. Because it seemed to us to be the most equitable method, and, I believe, is a method followed considerably by the railroads themselves in apportioning that class of expenses where they have

to make a division between different classes of freight service. Q. Is that regarded in railroad accounting as an accepted approximation of the actual conditions between different classes of service?

A. I am not familiar enough with railroad accounting to say that, but my understanding is that contracts, such as Mr. Kimbell testified about yesterday are on the car mile basis-

Q. Taking it as an accounting proposition, what do you think

of it?

A. As an accounting proposition I think it is the best method we

could follow with the information we had at hand,

Personally, I think the expenses should be divided on a gross ton mile basis which includes the weight of equipment and the weight of the product hauled, but this is the best information we had at hand to make a division.

Q. You think if you had the information the other way you

would get a little closer to the facts, is that it?

A. I believe so.

Q. This is the best method that would most nearly represent the actual facts that were available?

A. Yes, sir.

Q. I see you state that:

"In arriving at the number of engine and car miles we have added 50% to the engine mileage of local trains for station switch-2501 ing, and have assumed that each engine mile was equivalent to 21/2 car miles."

What was your reason for doing that, Mr. Wharton?

A. Well, it appears in this case that the local engines do a great deal of switching and while we had no basis on which to make our 50% estimate, we figured in our own minds that ought to be a liberal estimate as to the mileage made by local engines in station switching. Multiplying by $2\frac{1}{2}$ to get an equivalent in car miles is, I believe, what the railroad men call working it on a wheelage basis, a locomotive, I believe, being usually considered to be about the equivalent of $2\frac{1}{2}$ cars.

I discussed that with a railroad man and that was his idea, about

two and one-half cars to an engine.

Q. You got information from experienced men that led you to believe that this was correct, is that it?

A. Yes, sir.

Q. In the next division of expenses "Maintenance of Equipment"

I see you state that:

"The expenses under this head are divided between yard, and local and through road locomotives on the basis of locomotive mileage of each class during the month of October, 1907," and that you have:

"Added 50% to the mileage made by yard locomotives to provide for the possible extra maintenance due to yard service; have added 50% to the mileage of road locomotives in local service to provide for the possible extra switching mileage, and again have added 50% to the switching mileage of the local train engines thus ascertained to provide for the possible extra maintenance due to switching service":

What were your reasons for making those additions to the

2502 apportionment of the cost of the local trains?

A. I have always understood that switching engines owing to the nature of the work they do, require a great deal more maintenance expense in proportion to the mileage they make than road engines require, and the 50% was added to make provision for that, although we had no definite percentage that we could apply, and used that arbitrarily.

Q. That is an effort to take care of what you understand to be

an extra service performed in that line of traffic?

A. As to the local engine it is. The yard engine is just to take care of the extra repairs due to the work done by the yard engine.

The local locomotives, as we explained under the head of "Maintenance of Way and Structures" make a switching mileage in addition to their regular road mileage and we applied the same percentage of increased repair expenses as in the case of the yard locomotive.

Q. The next division is "(B)—freight cars";

I see you state: "This amount is apportioned to Arkansas by the Company on a car mileage basis. In dividing this expense between local and through service, however, we have taken into consideration the elements of repairs due to the stopping and starting of trains at way stations and repairs due to extra terminal handling of cars in local service."

2503 What figures and what authority did you have for adopting the percentages that you allowed for this extra expense for that service?

Mr. Moore: I want the record to show that I object to that, if your Honor please.

A. The figures, of course, were obtained from the records of the

railway company as to the maintenance of the cars.

The authority for the division as we had it as between starting and stopping and terminal handling, was the book by Mr. Wellington, as explained in the exhibit.

Q. Give the title of the book?

A. "The Economic Theory of Railway Location." The author is Mr. A. M. Wellington.

Mr. MOORE:

Q. Give us the date of that.

A. The date of this particular publication was in 1908, but the work was written a good many years ago and has been revised at various times.

Mr. MOORE:

Q. I want to get the date of that particular part of it which you refer to here, page 203.

A. You are referring to the statistics on which it is based, I suppose.

Mr. MOORE:

Q. Yes.

A. The date is not clear here, but it is back about in 1890 or prior to that time. I don't believe the statistics come up much later than 1890.

2504 Mr. MOORE:

Q. And that is found on Page 203 of the edition that you hold in your hand, what edition is it?

A. It is an edition published in 1908.

Mr. HILL:

Q. You say that you have assumed that each local train makes a stop every five miles and each through train a stop every twenty miles:

Have you information or did you gather information as to that fact in order to make a proper apportionment between the two?

A. I gathered information; that is the only way I could get it

on that particular.

Q. As I understand it, Mr. Wharton, you have, as explained here, endeavored to take care of all these elements of extra cost in these matters that have been stated by railroad operating men to be extra cost: is that it?

A. That has been the idea in working it up in this way.

Q. Mr. Wharton, the next sub-division I see is "Supervision and General Expenses" headed "C" in your exhibit:

I wish you would explain your method of dividing that between

the local and through service?

A. That is divided between local and through service in proportion to the total maintenance of equipment charged and assigned to the local and through service as explained, before taking up supervision and general.

Q. Explain that method of dividing charges of that class? 2505 A. Well, that is a method that is very commonly followed in the business world. In the apportionment of general and

supervisory expenses they generally follow the direct expenses and

they are generally so apportioned.

Q. That is recognized among accountants, is it, and the business world, as a correct method of apportionment of general expenses?

A. Yes, sir.

Q. Is it constantly used by your firm and other accounting firms?

A. Yes, sir, wherever we have occasion for the apportionment of that class of expense we invariably apportion them in that method.

Q. The next division is "3—Traffic Expenses": How have you

apportioned those?

A. We simply followed the railroad method of apportionment of those expenses there and apportioned them on the basis of the total freight revenue, intrastate and interstate.

Q. Do you think that is correct?

A. No, sir, I don't believe that is a correct method of apportionment of expenses.

Q. Have you been able to work out anything to your own satis-

faction that you think is a correct method?

A. No. I have not been able to work out anything that could be applied here. I think it might be possible to get a closer approximation of those expenses if proper statistics were kept as to the

freight that is influenced by the solicitors and other traffic men, but in the absence of any statistics on that, I don't know of any method that could be followed in apportioning those

Q. Do you think this is fair to the state?

A. No, sir, I think this unduly burdens the state traffic, that being largely non-competitive traffic and not requiring the services of traffic men particularly.

Q. Are there other methods than a revenue division of that to

get at an apportionment?

A. Well, I suppose some method could be worked up. I don't know of any class of expense that could not be divided on some A person would have to go in, though, and study the work of traffic men and the results they obtain and work up a method from that study.

Q. Could that be worked up like you work up cost and expense

systems for business concerns?

A. Undoubtedly something could be worked up along that line

that would be a pretty fair approximtaion of that expense between state and interstate business,

Q. The railroads have no statistics on that line?

A. No, sir, none that we could use in working up this division here.

Q. Then, in the absence of statistics for a proper basis you merely

accepted the railroad basis for this?

A. The revenue basis. I don't know that they followed exactly the division that we did, but we followed the revenue 2507 basis which is the one used by them in general.

Q. I believe this is a comparatively small item. It would not make much difference in the general result which way it was di-

vided?

A. No, it would not make a great deal of difference which way it would be divided.

Q. The next item is "Transportation Expenses":

I believe you have explained that pretty fully, Mr. Wharton, in this statement, but you might repeat into the record just your method of dividing the station expenses which is the first item there

under "Transportation Expenses"?

A. The station expenses are divided between state and interstate business and not between local and through train service. They are divided on the basis of total tons of freight handled in Arkansas during the six months period, assuming, however, that each state ton received two handlings and each interstate ton one handling.

Q. That has been the allowance that you have made in this for two terminals of the intrastate traffic on this particular item?

A. Yes, for two handlings at stations on state traffic as to one handling for interstate traffic.

Q. The next sub-division is "Yard and Terminal Expenses":

I believe that follows the others as explained in that sub-2508 division.

The next sub-division is "Fuel and Locomotive Expenses": I wish you would explain your method of apportioning expenses

there-that is, under sub-division "C."

A. Well, the sub-division explains it pretty well. We took as a basis for it the test made by the St. Louis Southwestern Railroad Company during October, 1908, of the actual fuel consumption of local and through trains.

Q. Could you get the actual fuel consumption of the Iron Moun-

tain?

A. We could not. We were unable to get that.

Q. Did you make an effort?

A. Back in October, 1907, Mr. Hamilton was instructed to get

the actual consumption if possible.

Q. Now, you say you have adopted the proportion that was found in the St. Louis Southwestern Railroad test: did you have any information that that would be a true comparison for the Iron Mountain?

A. I think Mr. Doddridge testified along that line.

Q. We had better refer right in this connection to that St. Louis Southwestern test, it shows there: can you get the Exhibit number.

A. Exhibit- No. 19 and 20,

Q. The next item to which I call your attention is "Engine House Expenses":

see that you have allowed that the local engines require 12% more service per engine mile than the through: how 2509 did you get at that?

A. By taking the average local engine run as compared with the average through engine run, as shown in our statistics Exhibit "I."

Q. So as to make proper allowance for the extra care of the engine?

A. For the extra use of the engine house by the local engine compared with the mileage they make.

Q. The next item, under sub-division (E) is "Road enginemen

and trainmen": what did you do in that case?

A. We worked up an actual division of that expense on the Iron Mountain during the month of October, 1907, and used that actual division as a basis for the division for the six months' period.

Q. And applied what you found for the one month as applicable

to the six months' period?

A. Yes, in the same proportion,

Q. That was from actual figures from the books of the Company, was it?

A. Yes, sir. Q. The next item, under sub-division (F) is "Other train expenses": how did you handle those?

A. Well, they are divided on the train mile basis as explained

there.

Q. The next item is "Loss and Damage" under sub-

2510 division (G): how did you follow that?

A. We worked up the actual claims paid during the month of October, 1907, and charged to that account and apportioned the item for six months on the basis of that one month's figures.

Q. Those are actual?
A. Those are actual for the one month.

Q. Now we have, under sub-division (H) "Supervision in General": I suppose you followed the principle you have heretofore explained on that?

A. Yes, sir.

Q. The fifth heading is "General Expenses":

You handled that on the basis of the direct charges on this accounting proposition that you have referred to?

A. Yes, sir.

Q. Under the eighth heading you have "Total cost of intrastate and interstate business": how did you ascertain that?

A. The method of ascertaining that is shown under the head of No. 7, the method of dividing train cost. It is explained in

detail.

Q. The next heading is "Miscellaneous revenue, taxes, rentals, hire of equipment and value of property":

That was divided on a straight revenue basis you have stated?

A. We just followed the railroad division with the exception of "Miscellaneous revenue." They made no division 2511 between state and interstate, but set aside the portion of the expenses.

Q. What did you do with it?

A. We divided it on a straight revenue basis, classified as to

intra and interstate.

Q. Then, I see you take the assessed value of the property and double that, following the railroad plan on the revenue basis?

A. Yes, sir.

2512

Q. Do you regard that as right?

A. No, I do not regard that as being correct.

Q. Why is it not correct?

A. Well, I can't see that the revenue has anything to do with the division of the value of the property or can be used in that way. I do not see the relation between the two.

Q. In your experience as accountant do you know whether that method is adopted in business affairs, accounting affairs, to ascer-

tain the division of property or cost of service?

A. I do not know of any case that it would be used in ascertaining the expenses of any given service. Of course, this is the only case I have ever seen where any division of property was necessary between different classes of business.

Q. Have you given thought and investigation to that subject, Mr. Wharton?

A. I have given considerable thought to the subject of the proper division of property, yes, sir.

Q. Have you any opinion of what is more nearly a correct basis

than the revenue basis for that?

A. My opinion is that the cost basis is the more correct basis for the division of property. Owing to the fact that the cost, taking into consideration the elements of extra use of property and the extra property required—if any extra property is required in the service performed—that it would be the best measure of the property required.

Q. That would take into consideration, then, all of the use,

whether extra use or not?

A. It would take into consideration all of the use, the cost basis. Q. Would it be subject to the fluctuation the revenue would be?

A. No, sir, it would be subject to no fluctuation except the fluctuation in expense.

Q. What do you think of the revenue division of the expenses? You were speaking of the revenue division of property.

A. My opinion of that is the same as it is on property, that it is no basis of division at all.

Q. In this table of statistics that you have prepared, I understand you have accepted the railroad division on that in the absence of anything else, and worked up the calculations accordingly? 2513 65 - 813

A. Yes, sir.

Q. The next statement I find here seems to be the passenger side of the question.

A. Yes, sir, and I will file that as my exhibit "L."

I have an explanation of Exhibit "L," and I will file that as "Exhibit M."

The papers last referred to are marked "Defendant's Exhibit L" and "Defendant's Exhibit M."

The said exhibits are in the words and figures following to-wit:

For Exhibit "L," see Volume 9, page 5801. For Exhibit "M," see Volume 9, page 5803.

2514 Q. This Exhibit M, as I understand you, explains your method used in Exhibit L?

A. Yes, sir, it explains it in detail.

Q. Now, Mr. Wharton, turn to the next statement that you have prepared there, which will be Exhibit "N" and state what that is.

The paper last referred to is marked "Defendant's Exhibit N" and is in the words and figures following to-wit:

For Exhibit "N," see Volume 9, page 5809.

2515 A. Exhibit "N" is a statement of the revenue, expenses and net earnings in Arkansas, both freight and passenger, as divided between state and interstate, mail and express business.

Q. For what period?

A. For the six months ending December 31, 1907. The statements of train cost that we have just discussed are carried into this statement on line 2-a, in the columns running across the page, under the head of "Operating Expenses."

The miscellaneous revenue, taxes, rentals, hire of equipment, dining car deficit, assessed value of the property, were carried into this statement from the exhibits showing the freight and the passen-

ger division of expenses.

The revenue from freight, passenger, mail and express business (line 1-a) is the revenue shown by the railroad company in its statements filed in this case.

Q. The total percentage shown of earnings and the value of the property, for the whole intrastate business, was 7.50%?

A. That is the total business in Arkansas that 7.50%.

Q. Now turn to the next page where we get the total intrastate (which statement will be marked "Defendant's Exhibit O"), and state what is the total intrastate return on the property as shown there?

A. The total intrastate return on the property would be 7.69%.

2516 The paper just referred to is marked "Defendant's Exhibit O" and is in the words and figures following to-wit: For Exhibit "O," see Volume 9, page 5811.

2517 Q. That is excluding mail and express? A. Yes, sir.

Q. Now, Mr. Wharton, have you calculations made on the Cotton Belt on the same line?

A. Yes, sir.

Q. There is one question I want to ask you about your passenger business in the statement you have just testified about: did you make a division between the local and through passenger trains?

A. No. sir.

Q. Why did you not do that, Mr. Wharton?

A. The reason was that we did not have any available passenger mile statistics showing the movement of the state and interstate business on local and through trains during this period.

Q. I wish you would attach the figures you have made in the

Cotton Belt Case as exhibits.

A. I will attach Exhibits "P to V" inclusive.

The papers just referred to are marked "Defendant's Exhibits P to V" inclusive, and are in the words and figures as follows to-wit:

For Exhibit "P," see Volume 9, page 5813. For Exhibit "Q," see Volume 9, page 5815. For Exhibit "R," see Volume 9, page 5817. For Exhibit "S," see Volume 9, page 5826.

For Exhibit "T," see Volume 9, page 5827. For Exhibit "U," see Volume 9, page 5832.

For Exhibit "V," see Volume 9, page 5834.

Q. Look at Exhibit V, excluding the mail and express, 2518 state the percentage of return on the valuation of the property of the Cotton Belt for this six months period?

A. Intrastate it is 9.16%.

Mr. Hill: Mr. Moore, I will turn Mr. Wharton over to you now. I want to examine him on some other propositions later, but you may examine him now if you wish.

2519

T. F. Wharton.

Cross-examination.

By Mr. MOORE:

Q. Mr. Wharton, how long have you been engaged in the occupation of an accountant?

A. Since the first of January, 1902; a little over eight years.

Q. Prior to that time what was your occupation?

A. Prior to that time, for about six years, I was City Clerk in a small city in Wisconsin. Prior to that time I was in a newspaper office as Printer and Business Manager and all-around man. That is practically all.

Q. Where did you begin to practice as an accountant in 1902?

A. In Chicago, for Haskins & Sells. Q. What character of work did you do?

A. The first work I did for Haskins & Sells was some city 2520 work that the firm was doing at that time in Chicago.

Q. What was the character of that work? A. The character of the first work I did was work connected with the Special Assessment records of the City of Chicago. It was regular accounting work in connection with that. The next I did

Q. What was the character of that work?

A. The firm had a contract to bring down to date from the time of the Chicago fire, the Special Assessment records of the City of Chicago and it was in that class of work that I spent about a month, I think it was, when I first went to work.

Q. That consisted of collecting and compiling such records as

could be found on that subject? Well, what was the next?

A. The next was in connection with the installation of the system of accounts for the City of Chicago. I spent about two months on

Q. What character of accounts were you dealing with in that

work?

A. The particular work I had to do with was in the Collector's office, the City Clerk's office and City Treasurer's office; looking after the accounting in those offices.

Q. How long were you engaged in that work?

A. I think I spent just about two months on that.

Q. Your work there, I suppose, was in developing some system of keeping the records of those offices?

A. Yes, sir; the system had already been outlined and it was my duty to see that the outline was carried into effect.

Q. What did you next take up in accounting?

A. The next engagements we were on were private engagements, both manufacturing-well, manufacturing was the next work I was on, principally.

Q. Tell me what character of work that was.

A. The particular character of work I did on the next engagement, for about three months, was in connection with the taking of inventories of work in progress, finished stock and raw material, and of foundry product. That was for about three months.

Q. And what followed that?

A. The work that followed that was more city work.
Q. What was the character of that work?

A. There were small engagements in between, but the next particular engagement I was on was city work in the City of Houston, and auditing for a period of three years of all the city's books and accounts, and the preparation and installation of a system of accounts for the city.

Q. By whom was that system outlined?

A. I assisted in that.

Q. How long were you engaged on that work?

2522 A. I was engaged on that work for about ten months. Q. In that work you dealt with the city accounts?

A. Yes, sir.

Q. That brought you down to about what date?

A. That brought me down to about the first of June, 1903. Q. What did you do next in connection with accounting work? A. I cannot remember all the engagements I have been on; some

of them were small and some of them were large.

The next recollection of any I had was with a large manufacturing concern, in connection with an analysis of the appraisals of the properties of the concern. I do not remember just how long I was on that but I think perhaps up until August. That was in Chicago.

Q. Some two or three months?

A. Yes, sir.

Q. What manufacturing concern was that?

A. I would not care to give the name.

Q. I do not want the name, I want the character of the manufacturing.

A. Well, they manufactured farm machinery.

Q. Machinery?

A. Yes, sir, manufacturers of machinery of all kinds.

Q. Now, you say that was in connection with the appraisal? A. Yes, sir, analysis of the appraisals of the plants of 2523 several large concerns.

Q. What did that work consist of, Mr. Wharton? A. Well, it would be pretty difficult to explain that.

Q. I mean in a general way?

A. In a general way it was taking appraisals that had been made by two different concerns, setting them side by side in detail, and working out the difference between the two, what it meant in dollars and cents, in machines, also, and in property.

Q. Did it also involve the valuation of the property? A. No, sir; I had nothing to do with the valuation.

Q. I do not mean did it involve valuation by you, but the valuations placed by others on the property?

Yes, sir.

A. Yes, sir.

Q. What work followed that in your accounting work? A. The next engagement was the audit of a retail lumber company. I cannot remember just how long it took me on that, but I think I was at work on it two or three weeks. That was not a very large engagement.

Q. In that work you went over their accounts, did you?

A. Yes, sir.

Q. Following that what was your accounting work?

A. The character of the next engagement was the investigation of the accounts of a county in Oklahoma, extending over a period of a good many years.

Q. How long were you engaged at that?

2524 A. I suppose some five or six weeks; I can't just remember exactly.

Q. In a general way what followed that?

A. The engagement that followed that was the preparation of a system for Oklahoma City.

Then following that was some small miscellaneous work here in

St. Louis.

Q. Commercial work?

A. Yes, sir; it was just small work, the work I did at that time, just auditing, and work of that nature. Then, following that, I went to New York and spent a little over 2525

a year there, auditing for various concerns and preparing systems of accounts for a few of them.

Q. Were those industrial and commercial concerns?

A. Yes, sir, and manufacturing; preparing systems of accounts and work of a general accounting nature; different kinds of work, hard to classify.

Q. To about what time did that bring you?

A. About Nov. 1, 1904. I left New York and came west and prepared and installed a system of cost accounts for a large manufacturing company, which took me about until the next June or July, that is, 1905.

Then I came to St. Louis to take temporary charge of our St. Louis office and I have been here practically all of the time since

Q. What work did you engage on when you came to St. Louis?

A. I just came down to take charge of the work of the office. I have forgotten what the office was doing. They had several different engagements they were working on.

Q. That was commercial work, though?

A. Yes, and manufacturing.

Q. About how long were you in charge of that character of work?

A. I have been in charge of it ever since.

Q. Mr. Wharton, in your experience in connection with the accounts of industrial and manufacturing concerns, what do you find to be their practice in charging off items such as depreciation and accounts of that kind?

A. Depreciation, particularly?

Q. Yes.
A. Well, very few concerns have any fixed rule as to charging off depreciation. It would be difficult for me to state what we found as a general practice among corporations. There is no general practice.

Q. From your experience in commercial accounts and the accounts of manufacturing and industrial concerns, what is the

proper rule in that respect?

A. I could not give it. I can only take each individual case and

work it out. I cannot give any rule.

Q. There is a system, is there not, of charging off a certain amount for depreciation in plants, and that which is used in manufacturing and industrial concerns?

A. There is no particular system. Each plant and each corporation governs the question of depreciation itself. There is no system that I know of that is followed by plants; that is, generally.

Q. Each one adopts a method of its own, you might say? A. Yes, sir, each generally adopts a method of its own.

Q. Do you find, as a rule, that establishments of that sort do have some system?

A. Do you mean as to the depreciation accounts?

Q. Yes.

A. No, I can say that, as a rule, the concerns that I have had to

do with have no such system; a few of them have. Where we have installed systems of cost accounts we always try to provide for depreciation.

Q. Why do you do that?

A. Because of the wearing out of the plant; the invisible wearing out that cannot be represented by repairs and renewals.

Q. What account do you charge that to?

A. To depreciation.
Q. Do you carry it as an expense?

A. Well, in a manufacturing concern it nearly always goes into factory expenses. The depreciation of buildings, used in manufacturing and the equipment used in manufacturing is usually

taken up as a manufacturing expense; one of the indirect

expenses of the manufacturing, as a general rule.

Q. What allowance do you usually make in your charge

for depreciation?

A. It is generally an arbitrary figure arrived at by the management as to what they think they should charge off. I never worked on any rule of that kind myself.

Q. When you adopt a method of that sort it is for the future as

well-

A. Yes, sir, for all time; supposed to be.

Q. Then the rule, whether arbitrary or otherwise, is one that you expect to be regularly applied in practice?

A. Yes, sir.

Q. And whatever it is will be applied with the same uniformity after such system has been adopted?

A. That is the idea of the thing.

Q. You say it is done in order to cover invisible—you might say an undefined loss or expense incident to business of that kind?

A. Yes, sir. Q. Is it necessary in order to enable an industry, or a person or corporation conducting a manufacturing industry or anything that employs the use of plants and perishable things, to do that in order that the books may properly reflect the financial condition of the concern?

A. Yes, I think it is necessary that that be done.

Q. You say you usually adopt an arbitrary rule: do you not have some uniform method by which you measure that rule? Although it might be arbitrary, was there not some con-2528 sideration upon which you acted in establishing that rule?

A. Well, usually the amount of depreciation to be charged off is determined after a consultation with the superintendent and with the other officials of the Company, and those most competent to know.

Q. I suppose really, the underlying principle is that it should be such a charge as would represent in money value the deprecia-

tion.

A. That is the underlying principle.

Q. The annual depreciation?

A. Yes, sir.

Q. When did you first undertake any work in connection with

railroad accounting?

A. The only work that I have undertaken has been in connection with the Missouri and Arkansas rate cases. That was started, I believe, about June, 1906.

Q. Was that your first experience in connection with railroad

accounts?

A. Yes, sir.
Q. Have you ever had any experience in railroad operation?

A. No, sir.

Q. The only experience or means of obtaining information in connection with railroad system accounting is what you have gathered in these two cases that you mentioned?

A. Well, I have had occasion to go into the Interstate Commerce Commission reports, more or less, and into their

system of keeping the accounts. ·

Q. Was that in connection with these cases?

A. Yes, it has been, and perhaps outside of that; just simply as a matter of accounting information.

Q. You say you began that work in 1906: what was your first

work in that line?

A. My recollection is that our first work was to take reports that had been filed by the Wabash Railroad in the Missouri rate cases and to start in on an examination of the data back of those reports in the railway offices.

Q. Where was that data found that you examined?

A. I only had charge of that work and did not get into the offices myself, in particular, to look after where it was found. Q. In other words, you did not give it personal attention?

Not close personal attention, no, sir.

Q. What was the next phase of your connection with railroad

accounting?

A. Principally it was in the discussion of all these matters with the accountants we had on the work and the preparation of statistics and information in relation to the results of their work.

Q. Your connection was more in the nature of consultation rather

than of actual work in the offices, then?

2530

A. Yes, sir. Q. Was that the fact throughout the Missouri rate case?

A. Yes, sir.

Q. You did not devote any personal effort or work to the examination of the accounts yourself?

A. Not in the offices of the Railroad Co., no, sir.

Q. How long did that engagement in connection with the Missouri rate case continue?

A. Until about January or February last year, I believe it was, 1909.

Q. I believe you were not a witness in that case, were you, Mr. Wharton?

A. No, sir.

Q. When did your connection with these cases begin?

A. Well, the first real work we did in connection with these cases I think must have been along in May or June of last year.

Q. 1909?

A. Yes, 1909.

Q. That work, and the work you have done since then, and the work you describe as having been done by you in the Missouri rate cases represents your experience in railroad accounting?

A. Yes, sir.

Q. What has been the character of your work in connection with these cases?

A. It has been supervisory; planning the work to be done 2531 with Mr. Hamilton and the other accountants on the work.

Q. Have you gone personally into the accounts and into the books of the plaintuffs in these cases?

A. No, sir.

Q. Your work on these cases has been something like it was in the Missouri cases?

A. Except that I had a more direct connection with this case than

I had in that case.

Q. What was the next work you were connected with in these cases?

A. I think the first work that we started to do in this case was to get at the movement of freight on local trains over the Iron Mountain, during the month of October 1907.

Q. When did you begin that work?
A. We must have started that shortly after we began this work. I am not just sure as to when we did start that.

Q. How long were you engaged in that work, Mr. Wharton?

A. I think we spent about four months on that work, getting up those statistics; four or five months; something like that.

Q. That was in May or June of last year?

A. Yes, or the first of July. It may have been close to the first of July when we started.

Q. When did you complete that work?

A. The work was mostly completed within the next four We started into these hearings and there was still left a good deal to do in the shape of getting our final figures on that work. I guess it dragged along quite a while before we got it completed.

Q. You did not get those figures and the formulas which resulted from that work, ready to present to the plaintiffs in these cases until

February of this year, did you?

A. Just about then, I think; whenever we sent a copy of the statistics to you; we were practically through with them at that time.

Q. At that time you were able only to furnish just a mere outline of the results?

A. Yes, sir.

Q. You had not been able to get your work into condition so you could furnish detailed statements until you filed these exhibits in this case—from "I" to "O" I believe they are. A. We have been working on these exhibits from the time we furnished you with a copy of the statistics until the hearing began in

Q. You were not able to work the problem out so as to prepare exhibits, until about the time you presented the exhibits, were you?

A. No, sir, not finally.

Q. Have you attended and been connected with the taking of testimony and proceed-ngs had before the Master since we began

taking testimony last Fall in this case? 2533 A. I have attended very few times,

Q. Have you been in St. Louis?

A. I have been in St. Louis most of the time. I have been away a few days at a time.

Q. But you did not take an active part in the hearing before the Master?

- A. No, sir.
 Q. I believe you stated that you made no investigations of the railroad accounts or records in the Missouri cases.
 - A. Not personally, no, sir. Q. Nor in fact in this case? A. Nor in fact in this case,

Q. Did you prepare or draft the statement or formulas that were

used in the Missouri case?

A. I worked with Mr. Taliaferro, Mr. Ludlem and others of our organization, on those statements, but I cannot say I prepared them; no, sir.

Q. Who outlined the work and suggested the character of work

that was done on the statements in that case?

A. Those were worked up jointly. Mr. Taliaferro I think, had more direct connection with that work than any other one in our organization, but all of those statements were worked up altogether in our office.

Q. Who was in charge of that work?

A. Mr. Taliaferro was more directly in charge of it. He worked at it all the time he was here.

Q. Who assisted him in that work, Mr. Wharton? A. Oh, several accountants. I do not remember now just who

they were: Mr. Hamilton, principally.

Q. I believe the same is true in this case is it not, that you did not work up these formulas that have been introduced in this case?

A. They were worked up in our office after a consultation, talking

back and forth.

Q. Did I not understand you to say on your examination in chief, that Mr. Hamilton had prepared these formulas and that you personally-

A. Not the formulas. I did not understand your question.

Q. To what extent did you participate in the preparation of these formulas contained in exhibits "I" to "O"?

A. I participated actively in the preparation, of the formulas and in the working out of the results, but it was worked out, as I say, through consultation in our office.

Q. But you did not go into the details in working out the result?

A. Not in working out the statistics in the railway office, no, sir.

Q. Did I understand you to say on your examination in chief, that while you did not do the detail work, that was done by others; 2535 that you suggested the line on which the work that was to be done.

A. I had charge of the work and to that extent did suggest it, but it was all worked out by Mr. Hamilton and others in our organization, after consultation.

Q. By whom was the method originated of dividing these accounts and the expenses of railroad operation as between local and through

trains, and state and interstate traffic?

A. Well, the most of the ideas I think came from the testimony in these cases. The ideas originated, with Mr. Hamilton and myself after my reading of this testimony, and the testimony in the Missouri case, and with Mr. Hamilton's understanding of the testimony in those cases.

Q. What did you base it upon, upon the reading of that testi-

mony?

A. The main idea, I think, came from the reading of the testimony in those cases.

Q. You considered that a basis on which to make those divisions?

A. The testimony of the witnesses of the railroads seemed to be based on the difference in cost between local and through service, and that suggested to us the idea of working up statements of the cost of local and through service.

Q. I was going to ask you upon what features of the testimony you acted in making that line of investigation and division.

2536 A. Just the general run of the testimony all the way through; the operating men, principally. I could not specify any particular wotnesses.

Q. I do not mean any particular witnesses: I just mean in a general way: in what respect. Mr. Wharton, do you think that the plan upon which the division is made in the exhibits filed by you in this case, is superior to the plan that was suggested by the plaintiffs' witnesses?

A. You mean the revenue theory?

Q. Yes.
A. Well, it seemed to me that this plan carries into effect all the reasons given by the railroad witnesses as a basis for their ideas of the extra cost of doing state business; while their ideas seem to be based more on opinion as referring to the revenue.

Q. Are your divisions not based upon opinion as well as the method of apportionment that was indicated by the testimony of the

A. No, not so much so.
Q. To what extent is there a difference?

A. The revenue theory is all opinion, and the plans worked on here have considerable basis of fact behind them all the way through.

Q. Do you mean that the plan outlined in these exhibits was not

based on assumptions?

A. They are based upon assumptions, yes sir; but the assumptions treated with each separately and not as a whole.

Q. Are the divisions you have made here based on any knowledge or information you have as to what occurs in actual operation of railroads?

A. No, I have no knowledge as to the actual operations of rail-

roads.

Q. It is based on information you have obtained by reading the testimony in this case?

A. Quite largely, yes sir.

Q. And you have taken that as a foundation for the programme that is outlined, or the method of division that is outlined in your exhibits?

A. Quite generally, yes, sir.

Q. Now, I believe you say you began work last year, for the purpose of ascertaining the movements of freight during the month of October, 1907—you did not say that month, but that was what you meant, was it not?

A. Yes, I think I stated October 1907; on the Iron Mountain.

Q. What was that work based on? What record in this case was that work based on?

A. The railroad record.

Q. I believe you stated it is based largely on exhibit No. 26.

A. Well, we used that exhibit in connection with the work that we did for that month.

Q. If I understand your plan, you have attempted to divide train expenses, as between local and through trains, first?

A. Yes, all expenses as between local and through trains with the exception of station and traffic expense, and a portion of general expenses?

Q. Your entire fabric, you might say, is built up on that theory?

Q. Dividing expenses between local and through trains?

A. Yes, sir, Q. Where did the data come from, from which you made that division between those two classes of trains?

A. From the records of the Railroad Company,

Q. I want you to particularize and tell me what particular records. A. Mr. Hamilton worked up most of that and I cannot do so. I turned that over to him to be worked up.

Q. You are not prepared, then, to be examined on the details of

that?

A. No, sir.
Q. Mr. Wharton, you stated—I quote it here from the testimony; turn to it in case you wish to see it-in your testimony in chief, that you were "familiar with the methods of operation and expenses adopted by the railroads and adopted by the State in that case."

—. What did you refer to in that statement?

A. The quotation is on page 504. The answer to my ques-2539 tion there meant that I was familiar with the issues in the Missouri cases and with the main points made by the railroad companies and by the state.

The testimony does not seem to be very clear there on that point.

Q. You did not mean to say that you were familiar with the methods of operation?

A. No, sir, I am not familiar with the methods of operation.
Q. Mr. Wharton, do you then feel that you are qualified to say as to how the expenses in operating a railroad should be divided?

A. Excepting from the point of view of an accountant, I am not. Q. But from the point of view of the practical operation of a railroad you do not pretend that you are.

A. No. sir.

Q. Do you think it is possible to arrive at the comparative cost of operation as between the different classes of railroad traffic?

A. I think that one can get a very close approximation, but not an exact statement of cost of operation of any particular class of traffic.

Q. What do you base that view on?

A. Just on my accounting experience; the fact that it is done every day in other branches of business than the railroad business; the cost worked out from—

Q. Do you believe that you are as well qualified to judge of the practicability of making a division on the actual basis of cost as men

who have devoted their lives to railroad operation?

A. As to the accounting features, it has been my experience that an accountant who would study those matters can work out a plan that will be better than the plan of an ordinary operating man who is not familiar with the accounting features.

Q. That is simply a plan from a book-keeping or a clerical stand-

point?

A. From an accountant's standpoint.

Q. That is what I mean. When you get down to the actual thing in practical use for the purpose of enabling an operating man to exercise his judgment as to the method of operation—to ascertain what the different branches of traffic cost, relatively, would you not think his experience would serve that purpose better and be more useful in obtaining practical results, than an accountant's?

A. His general knowledge, I think, would be better than that of an accountant, but I think that an accountant would go in and study the situation and lay out a set of accounts that would give results that an operating man would not know from his general

knowledge of the business.

Q. Is not the experience of an operating man in his connection with the operation calculated to give him more specific knowledge than that of an accountant who looks at it only from a distance?

A. The operating man just looks at the matter in general and not

at a specific item.

Q. Suppose an operating man says he has made a study to try to ascertain the relative cost; he has been engaged in actual operation; it is part of his duty and constant work; the point I want to call your attention to is this:

Does not the fact that he is closely in touch and associated with the actual operations and workings, give him a better opportunity of judging of the practicability of making a division and the basis on which it should be made, than a man who has no familiarity whatever with the operation of a railroad?

A. It should.

Q. Now, how can you or any accountant, form any definite idea as to what is a fair basis of division of the expense of operation as between a local train and a through train, without some knowledge of the practical workings of those two classes of trains?

A. Well, a person can gain some knowledge of that by reading the testimony in this case. That is where such knowledge as I used in this case came from; in reading the testimony of the operating

men; going through their testimony and getting their 2542 ideas.

Q. That second hand knowledge is derived from statements of operating men?

A. In this case.

Q. That is what you relied on?

A. Pretty generally, but not altogether.

Q. How long were you and your associates engaged in connection with the Missouri case?

A. We must have been engaged on that two and one half years.

Q. Who were associated with you in that case?
A. M. Taliaferro, principally. Mr. Hamilton was at work there and Mr. Ludlam.

Q. I believe you said you began your investigations in that case in 1906, did you not?

A. About June 1906, if I remember rightly. When was the testimony in that case taken?

A. I think they began to take testimony along in September or October, the same year, and it continued until about the first of January last year, at varying intervals.

Q. Did the representatives of Haskins & Sells prepare and file in

that case a basis of dividing expenses?

A. We prepared numerous exhibits there. I do not recollect, I would have to see them.

Q. Do you know at what stage of the case those exhibits were introduced?

2543

A. No, sir. Q. It was in 1909, was it not?

A. I could not say as to that. I did not attend the hearings, so I would not say.

Q. I want to ask you if as a result of the study and investigation of yourself and Mr. Taliferro, and those who were associated with

him in that case, caused you to use this basis in that case:

"Miscellaneous earnings, both freight and passenger, were divided between state and interstate on a basis of the actual state and interstate freight and passenger earnings. That means they were, in the case of the C. R. I. & P. R. R., that intrastate passenger earnings amounted to 50.29% of the total passenger earnings, the state divided the miscellaneous passenger earnings, which includes both mail and express, between state and interstate traffic, assigning to the state traffic 50.29% of the total miscellaneous earnings.

The operating expenses were divided between state and interstate traffic on the basis of the ton miles and passenger miles of each class of traffic.

Taxes and rentals were divided on the same basis used in divid-

ing operating expenses.

The valuation of the property was determined by multiplying the assessed value by three and dividing the amount thus ascertained between each class of traffic in proportion to the gross revenue of each class."

2544 Is not that the basis that is contained in the statement prepared by Haskins & Sells' representatives in that case?

A. I would have to examine the schedules to determine the correctness of all the statements you have made there.

Q. Have you copies of your exhibits in that case?

A. We have a copy of the testimony in the case, a printed copy

of the testimony.

- Q. Now, I hand you copy of the Rock Island exhibit in the Missouri rate case: I wish you would examine it and state if what I read to you is not a correct statement with reference to that, Mr. Wharton.
- A. I presume they are correct, but I do not know anything about them personally. I never examined the figures that were worked up.

Q. But what I have read to you is a formula that was used and presented to Judge McPherson?

A. Mr. Hamilton could testify better as to that. I am not familiar with it.

Q. What is your impression in regard to it?

A. My impression is that miscellaneous revenue was divided between state and interstate business on a basis of the gross revenue and that the expenses of operation were worked up on a ton mile and passenger mile basis, using different percentages in connection with them, of increased cost of state over interstate and that the

basis of division of property was not changed from the basis used by the railroad company, although I am not sure of 2545that. No comment was made on that, that I recollect.

Q. Was not the ton mile theory used with reference to the operating expenses without any other division, Mr. Wharton?

A. I do not just understand you.

Q. Was not the ton mile theory applied to operating expenses in gross without any sub-division of them by you in that case—without any destinction as between the expense of local and through trains?

A. They were made up, as I recall, without any allowance made for a distinction between local and through trains, but-

Q. That is the point to which I want to call your attention: the theory upon which the exhibits introduced in this case by you were filed wa not suggested in that case, was it?

A. You mean that we filed in this case?

Q. Yes, "I" to "O" inclusive.

A. The general trend of the testimony of the railroads in that

case had a good deal to do with suggesting this method of dividing the expenses, ves, sir.

e expenses, yes, sir. Q. This was the method suggested and adopted in that case by

you, that you just outlined?

A. I would not say as to that. I would rather have the exhibits

speak for themselves as to that.

Q. I do not want to put into this case the exhibits of that case, and if you participated to some extent in preparing them, you ought to be able to state what the result was.

A. While I participated in St. Louis in the consultations on that, my recollection is that the final exhibits were put in evidence in Kansas City and that they were worked over there considerably. I was not present at that time.

Q. Were you not sufficiently in touch and familiar with the work

to enable you to state now.

A. Just on a general line.

Q. You were not in touch with the detail work?

A. No. sir.

Q. And working out the system of division?

A. Not the final result as put into the case. I was not familiar with that. I did not follow it closely.

Q. Your work in that case hardly educated you very thoroughly on that subject, did it?

A. We discussed it a great deal in that case.

Q. Is not the primary basis of all the statements that have been filed by you in this case the showing of tons, ton miles and revenue of all traffic, included in the October 1907 accounts, divided between trans-state, interstate and state, and between car-load and less-than-car-load? I refer to exhibit 26.

A. We used those statistics in connection with the preparation of this statement. I would not say that they were the primary

2547 division, though; the primary basis.

Q. I should have added so far as the Iron Mountain Railroad is concerned.

A. Well, my answer would be the same.

Q. Was not the statement filed by Mr. Kimbell, of operations of the St. Louis Southwestern Railway for the month of October 1908, as exhibits No. 19 and 20, I believe, the basis of the statement prepared by you with regard to that Company in connection with certain ratios which you have applied in some instances, from exhibit No. 26?

A. We used Mr. Kimbell's statistics as far as we had occasion to, in the preparation of our Cotton Belt statement, but I do not remember any particular connection between the Iron Mountain exhibit

and the Cotton Belt.

Q. Do you know how exhibit No. 26 was compiled Mr. Wharton? A. No sir, I am not familiar with the methods of its compilation.

I think Mr. Hamilton is.

Q. What is your understanding of the effect of that exhibit as showing the tonnage moved by the St. Louis, Iron Mountain & Southern Railway in October 1907?

A. It shows the number of tons moved. I do not know just what that effect—I do not know just what you mean by your question.

2548 Q. I mean, what was your understanding as to the showing

made there of the tonnage moved in that month. I want to know whether in using that exhibit you did it with the understanding that it showed the tonnage moved in that month.

A. That was our understanding of it. To show the tonnage moved

or handled during that month.

Q. Your statement is based on that assumption; that is, the statement prepared by you and filed in this case?

A. We used these ton miles in connection with our other ton

miles, in connection with the local trains.

Q. Now, Mr. Wharton, you have testified that you did not 2549 do the detail work in connection with the exhibits you have filed in this case:

I wish you would state who did handle the detail work in connec-

tion with those exhibits?

A. As to the statistics, the detail work was handled by Mr. Hamilton and under his direction.

Q. Who were the men connected with it? I want to know who were the men who did that work and I would like you to give me the names of all of them.

A. I will have to refer you to Mr. Hamilton on that, because he had charge of that work and disposed of the men as he saw proper, on the various classes of work they were doing.

Q. Are you unable to give me the names?

A. I would not care to state, because I don't know the individual work the men were doing up there. Mr. Hamilton does know that,

Q. Do you know what the cost of that work was?

A. No, sir.

You could not undertake to state what the cost of that work Q. was?

A. No, sir; I would not care to. I haven't worked it up at all to

Q. In Exhibit I, near the bottom of the page, is the heading, "Number of cars handled in and out of terminals":

2550 Will you state how that was arrived at?

A. Mr. Hamilton worked that up under instructions to take the wheel reports showing the total cars going into the terminals where yard engines were maintained, and the total cars shown by the wheel reports as going out of terminals where yard engines were maintained, and these figures were worked out on that basis. That is, during the month of October, 1907.

Q. I want to call your attention to Exhibit K: that exhibit, as I understand it, deals with the cost of "maintenance of way and

structures" of all the business in Arkansas?

A. The part under that heading, "maintenance of way and structures" deals with the proportion charged to the freight business. Q. What I mean is this: so far as the operation of the Iron

Mountain as a system is concerned, it is dealing with that part which is assignable to the state of Arkansas?

A. Yes, sir; that portion assigned to Arkansas, and assigned to

the freight business by the railroad.

Q. Now, I am going to ask you where you got those divisions? In the first place, where did you get the basis upon which you acted here, as to that part of the business of the Iron Mountain system in Arkansas?

A. The total "maintenance of way and structures" the expense was taken from the exhibit filed by the railroad 2551

Company.

Q. I want you to show me that exhibit.

Statement 4, to Exhibit 3, filed in this case by the plaintiffs, shows a division of operating expenses on the Iron Mountain system which were charged to the state of Arkansas. Did you take that statement as a basis of the total expense of operation in this state?

A. I will explain this more fully: as to the "maintenance of way and structures" we took the total amount shown on Exhibit No. 3,

page 2. Q. That is taken from statement 4 of that exhibit, is it?

A. I don't know whether you call that statement 4, or not. It

Q. Just look at statement 4, and you will see what it is.

A. As I explained, the "maintenance of way and structure" expense was taken from item shown page 2, of Exhibit No. 3, where a division was made of that expense between the freight and passenger business. We took the total freight expense-

Q. I am not speaking about that. I am speaking of the expense in

Arkansas, on the Iron Mountain system:

What I want to know is, where did you get the basis for your figures as to the expense of "maintenance of way and structures" in the state of Arkansas?

2552 A. We got that from this statement number 4, as to the

total amount.

Q. You adopted that statement as reflecting the amount chargeable to this state? That is what I want to understand.

A. Yes, sir, Q. Now, Mr. Wharton, as I remember, there was no similar statement filed by the Cotton Belt road: where did you get the expenses assignable to "maintenance of way and structures" in the state of Arkansas, on the Cotton Belt? When I say "Cotton Belt" I mean the St. Louis Southwestern Railway.

A. As to the "maintenance of way and structures" from Exhibit

Q. What is the item there that you referred to?

A. "Maintenance of way and structures", I say, from Exhibit 32, which was a statement filed by the St. Louis Southwestern for the month ending December 31, 1907.

Q. Where did you get that portion of the expenses which you assigned to the freight traffic, and that portion which you assigned to the passenger traffic in your exhibits in this case?

A. From the books of the railway companies. Q. From the books of the railway companies?

A. Yes, sir; books and records.

Q. Statement number 2, to Exhibit 5, filed by the plain-2553 tiffs in this case, contains a statement of the basis upon which the division is made between freight and passenger traffic expenses:

Is that the basis upon which you acted in dividing expenses as

between freight and passenger traffic?

A. We made no division between freight and passenger of our own; simply taking the division made by the railway company itself.

Q. You simply adopted the division they had made?

A. We took their division.

Q. Why did you take that, Mr. Wharton?

A. We considered that it was good enough for the purpose we

cared to use it for. Q. Both as to state assignment and as to division between freight and passenger?

A. Yes, sir.

Q. And when you say that you apply it to both plaintiffs in this

A. Yes, sir.

Q. Either you or the representatives of Haskins & Sells doing this work, verified the figures and the bases presented by the railroad company, did you not?

A. In general, yes, sir.

Q. On what basis is a division of expense as between freight and passenger traffic, on the Iron Mountain, made in 2554 the exhibits in this case?

A. On their exhibits?

Q. Yes.
A. It depends on the nature of the expense. They used various methods. It is all explained on this statement number 5, just referred to.

Q. It is largely on the revenue train mile basis, is it not?
A. Yes; largely on a revenue train mile basis.

Q. Did you think that was a proper basis to divide it upon?

A. As between freight and passenger, it was probably good enough for the purpose of this case. I would not care to pass a personal opinion on that, because I have not studied it sufficiently to form an opinion as between freight and passenger.

Q. Is not the division between freight and passenger the very basis and ground work of all the work you have done in this case?

A. Both freight and passenger. The rates and the expenses are the issue, and it seemed to me that a change in method would not materially affect the total result.

Q. Could you make an intelligent or satisfactory assignment of the expense of freight traffic or passenger traffic either, as between

the several branches or departments of each of those kinds of traffic, without having before you a correct statement of the total of each?

 Well, an approximately correct statement; as near as it can be made correct.

Q. Let me ask you: is not that the very foundation, the fundamental part of your work, that you must have a correct statement to work on, and must know the total cost before you can make any attempt to ascertain the cost in detail?

A. It is necessary to have the total cost of freight and passenger

before you can go into detail.

Q. Did you ever in your experience in auditing the books of any industrial, manufacturing or commercial concern, act on the data before you, without first satisfying yourself that the total of whatever you were dealing with, was correct?

A. Either correct, or approximately as near so as it could be

made.

Q. I want to ask you this in that connection: I believe you said you did not give that sufficient study to enable you to determine whether it was a correct division or not, as between freight and passenger?

Would it have required any greater examination to determine that question, than as to the proper division of the various elements.

between state and interstate?

2556 A. Well, it would require considerable study, I think, to arrive at an exact correct basis, if one could be arrived at.

Q. Could you say that you were qualified to ascertain the cost in detail of freight traffic, and apportion it between state and interstate, without giving the matter sufficient study to enable you to arrive at an intelligent conclusion as to whether the total expense of operation had been properly divided between freight and passenger?

A. Having accepted the railway company's division between the freight and passenger, the only study that was necessary was as to a division of freight expenses between local and through, and the passenger expenses of the various classes. It was not necessary, particularly, to give any consideration to a division between freight and passenger business.

Q. You say you accepted the division between freight and pas-

senger, made on the revenue train mileage:

Why did you depart from that basis in making your division of expenses of "maintenance of way and structures".

A. On a car mile basis?

Q. Yes.

A. It was our idea, after considering the matter, that a car mile, as between local and through, would more nearly represent the difference in cost.

2557 Q. What was the reason for that?

A. On account of the difference in the two classes of trains. local and through; and the difference in the cars they carry, and the number of cars in the train.

Q. I see you added 50% to the engine mileage of local trains, on

account of station switching:

Where did you get that per cent?

A. That percentage was worked up after consultation with Mr.

Hamilton and with others, and was simply an arbitrary percentage added.

Q. That was simply an arbitrary assumption?

A. Yes, sir; an arbitrary assumption.

Q. You had no knowledge or information which qualified you

A. Except such as I just stated, discussing the matter with Mr.

Hamilton and others.

Q. And you had to adopt some basis—an arbitrary one—just like it has been said in this case that the revenue basis was an arbitrary one? You had to have a basis and you had to take something for that basis?

A. We felt that something should be added to local engine mileage

for that purpose.

Q. But you did not know whether fifty per cent or some other figure should be added?

A. No, sir.

2558 Q. Then you added 150% for each engine mile to make it

equal a car mile: why did you do that?

A. We added 150% to engine mile, also after consultation with Mr. Hamilton and with others, as representing the difference in the weight of the engine and the cars.

Q. Did you weigh an engine and car for the purpose of ascertain-

ing from actual weight what the difference was?

A. No, sir.

Q. Then what reasons were given in your consultations—if you had consultations you must have developed some reasons—for adopting that per cent? What was the reason, that is what I want to ascertain, because this is the foundation of your figures?

A. Well, if hearsay testimony is not competent, I would not be

able to say.

Q. So you are unable to make an explanation?

A. Except upon information I gathered in consultation with men who were qualified to pass on that.

Q. What causes this extra amount of switching performed by the

engines that haul local trains, Mr. Wharton?

- A. Local service, according to the testimony of the witnesses in this case.
 - Q. What do you mean by "local service"?

A. Local service done by local tarins.

- Q. I understand that, of course: what necessitates that 2559 service?
 - A. Switching cars from the trains to the sidetracks—

Q. What makes it necessary?

A. The nature of the service itself. The witnesses in this case

have testified as to that.

Q. The point I want to ask you is this: you have added fifty per cent to local over through trains to offset the extra switching: now, what character of freight causes that switching to be done—what class of freight?

A. The local freight that has to be distributed through the state, or to be picked up in the state.

Q. As between the interstate and intrastate freight carried on local trains, which causes it?

A. Both.

Q. In what proportion do they each contribute to the switching service? That is, produce the necessity of it?

A. Exhibit I of the Iron Mountain, will show the freight hauled

on local and through trains.

Q. You mean your Exhibit I?

A. Yes, on the Iron Mountain; will show the freight hauled on local and through trains, both interstate and intrastate, and the relative volumes there would evidently indicate the necessity for the switching.

Q. I understand that, but the point I want to get at is this:

You say that you acted on the evidence in this case that there was a difference in the extra expense: Does not that evidence show, Mr. Wharton, that that extra switching expense results from and is caused by the handling of state freight?

A. Not according to my reading of the testimony; no, sir.

Q. Did you read Mr. McPherson's testimony?

A. I ran through it.

Q. Do you recall what he said about it?

A. No, sir.

Q. Did you have that in mind when you made this division?

A. No particular testimony.

Q. Whose testimony do you recall, of all the witnesses who testified in this case, that does not indicate that the extra switching cost on local trains grows out of state freight? If there is any one—

A. I recall no particular testimony on that point. The best evidence as to what the switching was for would be indicated by the freight carried on the trains, which is shown in our Exhibit I, on the Iron Mountain.

Q. Do you say, Mr. Wharton, that that exhibit contains any evidence whatever as to the character of service that has to be rendered for each of the two classes of freight, state and interstate?

A. It indicates the volume of the traffic, both state and

interstate.

Q. Yes, but does it indicate the different kind of service that is incident to the two kinds of traffic that is carried on local trains? Local trains carry state and interstate freight. You say the exhibit indicates the total volume of traffic carried on the local train: does it indicate the service that is necessary and incident to those two kinds of traffic?

A. Only as the volume of traffic itself indicates it.

Q. In what way does the volume of traffic indicate it, Mr. Wharton?

A. The volume of traffic indicates what the train carried.

Q. I understand that, but I am not talking about what the train carried. I am talking about the extra expense on account of switching of local trains. The extra expense on account of extra switching

that has to be done by local trains? Now what do you see on that exhibit that indicates to which class of traffic that 2562 should be charged?

A. There is nothing except the volume of the traffic itself.

Q. Now, Mr. Wharton, if that is the case, as you stated, how would you make known by what appears on the exhibit-and what appears there does not indicate any difference in the extent and character of switching anywhere between the two kinds of trains-why do you make an allowance of fifty per cent for switching on the local trains?

A. To get the local train expense.

Q. It seems to me you must have had in mind in making up that exhibit the sources from which that extra expense arose, didn't you?

A. No, sir; except the local train does the switching at local stations for all classes of traffic, whether state or interstate.

Q. You did not have that in mind?

A. We only had in mind the fact that it does the local switching

in either case.

2563

Q. Mr. Wharton, I wish you would give me a statement of transstate freight that was handled on local, also on through trains, in October, 1907, on the St. Louis, Iron Mountain and Southern and the St. Louis and Southwestern Road each?

A. For the Southwestern I don't believe the statistics have been worked up.

Q. Well, take first the Iron Mountain?

A. Well, I will have to go into our records and see if we have them.

Q. I think you can point that out from the exhibit here?

A. Not of the trans-state. I will of the local and through trains, is that your question?

Q. Yes.
A. No, we haven't it in any exhibits here.

Q. Will you let us have that then, Mr. Wharton?

A. If we have the figures, I will, yes, sir.

Mr. HILL: I believe it does appear in the exhibit as interstate. without carrying the distinction in it throughout, doesn't it?

A. That is correct.

Mr. MOORE: Mr. Wharton, in order that you may understand specifically what it is I want I will call your attention to it. The interstate freight carried on local trains and on through trains on the first line of that exhibit. Now I want to know what the ton miles of trans-state freight are in each one is, and what the per cent is?

A. Now that can be furnished as to the Iron Mountain but not

as to the Cotton Belt.

Q. You say it cannot be furnished as to the Cotton Belt?

A. No, sir.

2564 Q. Don't your total figures show on your work sheet each kind of freight carried on those trains?

A. On the Iron Mountain, yes; not on the Cotton Belt.

Q. Then you can obtain that information from your work sheets, can't you?

A. Yes, as to the Iron Mountain.

Q. In adding fifty per cent to the engine mileage on local trains on account of station switching did you make any distinction between that part of the traffic that was trans-state and the other part?

A. No, sir.

Q. Well, do you think there is any difference between the amount of switching done for trans-state and interstate freight?

A. I couldn't say as to that on local trains. Q. Well, what is your opinion about that?

A. I wouldn't express any, I have none as to that.

Q. You have no opinion as to that? A. No, sir.

Q. Well, wasn't that a very important feature to know that?

A. Not as I understand between local and through train service, no, sir.

Q. Now let us see, I don't mean make a difference on the division right now between local and through trains. I mean when you go to divide expenses, like the difference on state freight and interstate freight, wouldn't it cut a figure then?

2565 A. It would in a final division between state and interstate.

Q. Did you make any allowance or give any attention to that in making your final division between state and interstate, after you had divided the expense to local and through trains?

A. No, sir.

Q. So if there was any distinction there it was not taken into your statement?

A. If there is any distinction it is not taken into consideration. Q. Mr. Wharton, how does the volume of traffic in the month of October compare with the volume of traffic in other months sepa-

rately during the period of twelve months?

A. The total amount of traffic during the month of October was heavier than it would average for the six months ended December 31, 1907.

Q. What is the difference?

Mr. HILL: Which road is that?

A. That is Iron Mountain.

Mr. MOORE: What is the difference?

A. The total volume of traffic during the month of October was in round numbers a hundred and twenty million ton milles. The six months ending December 31 amount to five hundred and eightyeight million, or an average of a little less than one hundred

2566 million ton miles per month.

Q. What was the total ton miles for October?

A. A hundred and twenty million.

Q. That was about twenty per cent above the average? October was about twenty per cent above the average?

A. Yes, sir. Q. How were the months of July, August and September compared with the months of October, November and December?

A. I have the statistics for the period by months.

Q. You can't separate the six months period into parts then?

A. No, not with the information I have before me.

Q. Have you any information in the details you worked up in this case that would enable you to say that?

A. I couldn't say. I don't believe we have any by month though Q. What is the volume of the tonnage as between local and through trains in Otcober?

A. As between local and through trains?

Q. Yes, sir.

A. You want it in figures or percentage?

Q. Perhaps both ways?

A. During the month of October, 1907, the local trains carried 11.18 per cent of the total freight, and the through trains 88.82.

Q. Read that again please?

A. During the month of October, 1907, the local train 2567 carried 11.18 per cent of the total freight, and the through trains 88.82.

Q. I want that stated in train miles if you have it?

A. No, I can't state it in train miles. Mr. HILL: Was that in ton miles?

A. It is the percentage of ton miles carried, local and through. Mr. MOORE: Your record there shows the relation in October. doesn't it?

A. Yes.
Q. That is what I am asking about now; in ton miles.

A. Well, in ton miles

Q. Train miles.

A. Well, I would have to work it out to give it to you in train miles.

Q. Here is it, Mr. Wharton, right there (indicating on exhibit).

It isn't worth while. What is the train mile?

A. Well, the per cent of train mile, local train miles are 26.42 per cent of the total, and the through train mile 73.58 per cent of the total.

Q. How will that compare with the six months ending December

31, 1907?

A. I haven't the statistics for the six months.

Q. Have you ever looked that up?

A. I had Mr. Hamilton look it up roughly at one time. 2568 It was just worked out roughly, though.

Q. You haven't that?

My impression is that the percentage remained very close to this percentage for the whole six months, but I am not sure that is correct.

Q. You cannot state how it is?

Q. Well, now were those figures—was that basis of division worked up without that knowledge?

A. This basis of division?

Q. Yes.

A. It was worked up with a knowledge we had for October, 1907.

Q. But was it without a knowledge as to what the relation was for the six months ending December 31, 1907?

A. Yes, sir, just on general average.

Q. You didn't work it out? A. No, sir, not closely.

Q. Wasn't that a very essential matter to know about in determining whether you could take October as a representative month?

A. Well, if there had been a large variation of the train miles I think it would have been important, but the rough figures we made up show there was a very little variation in the relative train miles.

2569 Q. Mr. Wharton, do you know whether the number of local trains is uniform throughout the year operated on these two roads?

A. No, sir, I don't know whether it is or not.

Q. You don't know whether they run one or more than one train in the month of October?

A. No, except just from general knowledge that the local trains

usually run on the days they are scheduled.

Q. The point I am calling your attention to is whether there is more than one local train run at any time during the year on either of these line- of road?

A. I haven't any knowledge as to that.

Q. Well, now, you do know as a matter of common knowledge. don't you, that in the autumn down in Arkansas, that there is a very large increase in the volume of business, you know that, don't vou?

A. I could tell that if I saw the statistics.

Q. I mean don't you know that as a matter of common knowledge?

A. I would not want to say that I know that as a matter of com-

mon knowledge, no.

Q. Don't you know that the movement of the cotton crop necessitates a very much larger increase of equipment and that there is great complaint down in that country in the autumn about want of railroad equipment?

2570A. I don't know about the complaint, but I assume a great deal of the cotton crop would be moved along through

the fall and winter.

Q. Now what I want to ask you is this: If you know that the increase in volume is more largely in the movements of interstate traffic than it is in the movements of state traffic?

A. No, I don't know whether it is.

Q. You don't know that?

A. Except as statistics would indicate.

Q. You haven't investigated that?

A. Not closely.

Q. Why did you divide maintenance of way and structure between local and through trains? Why did you do that?

A. Why did we divide it?

Q. Yes.

A. In order to find out the amount.

Q. I mean is that a train expense?

A. It is an expense caused by running trains; necessary for the running of trains, but not strictly an expense of the operation of the train itself. The road is kept in condition that the trains may run over it.

Q. Isn't it based on the theory that the depreciation of wear and

tear to the track is caused by the operation of trains?

A. Not entirely, no, sir.

Q. Then why do you use it as a train expense then?

A. Because it is an expense necessary that trains may be 2571 operated over the road-necessary that they may be operated over the road.

Q. Now there may be-and there are-some items of maintenance of way that are not and cannot in the nature of things be attributable to the operation of trains, and yet you include them in this division, don't you?

A. What are you referring to now? Q. What is included in maintenance of way and structure? Just tell me what you include in that?

A. Mr. Johnson's statement No. 4 shows the classification of

accounts included in maintenance of way and structure.

Q. And the classes that are included in that exhibit are covered by your exhibit there, are they not?

A. All of this was covered by our exhibit, all lumped together.

Q. Well, I see there an item of flood damages, an item of general cleaning of right-of-way, an item of buildings and grounds, fences, telegraph and telephone, personal injuries, stationery and printing. Now are any of those items effected by the operation of trains?

A. They are incident to the expense of maintenance of way, The maintenance of way is affected by the operation of trains and cars, and they naturally follow the direct expense of them.

Q. But the depreciation caused by those things is not

2572brought about by the operation of trains is it?

A. They are necessary to keep the track and roadway in

proper condition, and to that extent they are.

Q. Mr. Wharton, isn't it a fact that a very large per cent of the depreciation and damage to tracks-this maintenance of the way cost attributable to the elements rather than to the operation of the trains on the track?

A. That is correct; yes, sir, I think so.

Q. Now if that is true why do you charge that as train expense?

Why don't you divide that on some other basis?

A. Because the primary object is to keep the tracks and roadway in condition for the operation of trains. We have to keep up the tracks and roadway for the trains to run over, and naturally whether the expense is caused by the train itself or is necessary so the trains may run over the tracks, it seems to me it would naturally follow the use made of the track.

Q. In other words, that is on the theory of the trains have to

use the track and whatever depreciates the track must be charged to the train expense?

A. It must be charged to the account that naturally follow- those

that are naturally caused by the operation of the trains.

Q. Now, you have got to have a railroad in order to do business and you have got to have traffic too?

A. Yes. Q. How did you follow the division? 2573 A. Didn't have any particular division?

Q. Is it more essential to railroads to have tracks than business?

A. It is absolutely essential to have the track.

Q. Why did you divide a portion of the traffic expenses on the

revenue?

A. There was no other basis to go by and just simply stated them in that way. There was no basis of division suggested by anybody that seemed more reasonable and that could be worked out and we simply followed that method.

Q. Now isn't it a true theory if you were going to make a division of the expenses of operation on the basis of local and through trains, that the proper way to do it is to confine it to that character

of expense which grows out of the operation of the train?

A. All of the indirect expense that grows out of the direct expense follows the direct expense, whatever it may be. If the indirect expense is apportioned on one basis the direct expense is apportioned on one basis. It naturally suggests itself to follow that basis.

Q. In the exhibits you have prepared it is a direct expense?

A. In the exhibits we have prepared and in the general accountings.

2574 Q. What proportion of the expense of maintenance of way and structure is the result of wear and tear from the operation of trains over the track?

A. Well, I couldn't say as to that.

Q. Is there any charge in these accounts on account of deprecia-

tion of structures and tracks and so on?

A. I have no details of the account, but I don't remember there is as to the maintenance of way and structure any depreciation charged. Mr. Johnson may know more about that himself. I don't see any depreciation down here.

Q. Well, there is a very large depreciation there from natural

causes, isn't there?
A. Yes, sir.

Q. Now you stated this morning-I mean since you have been on the stand-that your observation in regard to the charge on depreciation. Should there not be a charge made there according to the proper method of conducting business of this kind, necessary to the business?

A. Well, as to track and roadway, the railway company that keeps its property in good condition. I would hardly know just what to say as to a proper charge for depreciation. I presume there should

be some charge there for that purpose.

Q. Every reason that would exist in an industrial plant would apply to a railroad, wouldn't it?

A. Well, in an industrial plant the machines wear out.

Q. The machinery of railroads wear out?

A. Well, the railroad usually keep their property up in 2575 good condition, the track and the roadway; while in an industrial plant the machines will wear out, and that wearing isn't noticeable until it is necessary to replace a machine entirely by a new one, you can't repair it.

Q. At the same time it is true that there is an analogous depreciation going on not only in the track and the structure but in the

machinery that is used on the railroads, that is true, isn't it?

A. I say there should be some depreciation charge. Q. What would you estimate would be proper?

A. Well, I have not anything in mind on that subject. I would have to go into an investigation before I could make up my mind

and then probably could not.

Q. I believe you said you have given this subject some study and thought, Mr. Wharton. If that is true, I suppose you know that there has been a very thorough investigation on the subject of division of expenses by the Wisconsin Railroad Commission, don't you?

A. Yes, sir; as between, I think, just freight and passenger busi-

ness, however.

Q. Now, you looked up some authorities, among others Mr. Wellington. Isn't it true that the Wisconsin Railroad Commission divided that part of the maintenance of way and structure expenses which resulted from depreciation on the gross earn-2576 ings basis?

A. I couldn't say; I would have to go and look over their ruling on that matter first to know just what their final finding was in that

Q. Does your car mile basis make any allowance for the difference of weight in cars?

A. No, sir.

Q. Well, do you think that is fair, Mr. Wharton, to charge the same amount of wear and tear to every car without regard to its weight?

A. Not absolutely, no sir. I expressed the opinion that I thought

the gross ton mile basis would be the best basis to use.

Q. The gross what?

A. The gross ton mile, which would include the weight of the car.

Q. Why didn't you use that basis?

A. I didn't have the information on which we could work it out, and this was the next closest to it.

Q. Then you have not adopted what you think would be the best basis?

A. Not the best basis, no, sir.

Q. Now the Cotton Belt exhibit contains that very information, don't it, Mr. Wharton?

A. It may be. I didn't look into it very carefully.

2577 Q. Look at it and see, please, Exhibit 19?

A. Yes, it gives the weight of the trains; the dead weight as well as the ton mile weight.

Q. You could then have made a division on that basis as far as that road is concerned?

A. Yes, sir, we could have done so.

Q. Well, why wasn't that rule adopted if you think that was the proper method?

A. We preferred to work both statements on the same basis.

Q. Now, there is a difference in weight growing out of another cause, cars may be empty at the initial point, and then refilling cars, or cars on local trains are lightened from station to station by unloading at those stations, are they not?

A. I presume so, although I am not familiar with that.

Q. Isn't that true with that kind of state traffic which is peddled

out at local stations?

- A. I wouldn't say as to that. I am not sufficiently familiar with that to pass on it. I could state that in Exhibit P, which is our Cotton Belt freight exhibit, we show the average loading of revenue on freight, both carloads and less than carloads in the local and through trains.
- Q. And the statement you speak having there shows a forty per cent heavier loading on through than local trains?
 A. Taking a carload and less than carload together, yes, just

about that.

- Q. Now doesn't the report also show the gross ton miles on each train?
- A. It does not, and I don't believe we had it on carload and less than carload. We didn't have the statistics on which we could do that.
- Q. Well, it was not necessary to show that as far as the division between local and through trains, was it?

A. No, sir, it was not necessary to have this in either case.

Q. Then you could have made that division on the gross—did you say tonnage basis a mile?

A. Yes, sir.

Q. Which you say would have been the better plan—did you use the term gross tonnage?

A. Gross ton miles.

Q. You could then in both cases have made your division on gross ton miles?

A. No, sir. Q. Why not?

A. We didn't have the weight of the equipment of the Iron Mountain.

2579 Q. Didn't the Wheeler report show that?

A. I don't know, I didn't see the Wheeler report.

Q. I will show you now.

A. I think the Wheeler report provided for that, but I don't know whether it is on there or not.

Q. Well, this statement of yours was made up on the basis of the Wheeler report?

A. As to the ton mile of freight and car miles, engine miles and

train miles.

Q. And this division between local and through trains and the cost of maintenance of way and structure was made on the basis of car miles, wasn't it, which you obtained from his report?

A. Yes, sir.

- Q. Now doesn't Exhibit 20 show that the dead weight for the local train was 120 per cent greater than the through on the Cotton Belt road?
- A. I didn't see it worked out here. Mr. Kimbell's exhibit shows that the average ton miles of dead weight to each ton mile of commercial freight of through trains is 1.84 ton and on the local trains 4.9 tons.

Q. Now did you make any allowance for the difference between

empty and loaded cars?

A. No, sir.

Q. And its affect upon the track, or wear and tear?

Q. Your figures include empty as well as loaded cars, do 2580 they not?

A. Yes, sir.

Q. Mr. Wharton, don't you think that to get a correct division of the cost of maintenance of way on a basis of car miles, and engine miles we would have to take into account these differences in weight between empty and loaded cars, and between that class of cars which are loaded heavily and those loaded lightly, and that class of cars which begin to unload immediately from the time they start out from the station until they get to the end of the journey, which is the case with local trains?

A. If the expense were divided on a gross ton mile basis that would all be taken care of. Of course it is not all taken care of

exactly on the division on a car mile and engine mile basis.

Q. Well, the reason I wanted particularly to call your attention to that, because you stated in your examination in chief that you wanted to get away from theory and get this down on a basis of actual costs. Now in view of these facts have you succeeded in doing that?

A. I think we have got it down to a very close basis of actual

cost, not to an actual division.

Q. Now isn't the assumption that you make in this division by adding fifty per cent to engine miles for station switching 2581and that every engine mile is equivalent to two and one-half car miles, a matter altogether of conjecture or guess?

A. Not altogether of guess, no, sir.

Q. Well, now, tell me the elements of certainty and knowledge

that there is in it? How do you know that?

A. That was arrived at after a consultation with Mr. Hamilton and others as to about the length of time it takes a local train to make its run and the length of time that

it ought to take if the train ran through, making some allowances for each station, and the evident time-the ference between the two that would be spent in switching. add for this about six miles an hour, which was the basis I think fixed by the Interstate Commerce Commission, amounted to about the percentage we have used here. It was just worked out roughly and we did not go into any detail on the matter. But that was the ideas we had back of the figures we used here.

Q. You were asked by counsel why you divided expenses of maintenance of way between local and through on the basis of total engine and car miles, and you stated in your answer, among other things, you believed that it was a method followed considerably by

the railroads themselves in apportioning that class of expense 2582 where they have to make a division between classes of freight service.

Now, Mr. Wharton, does the railroad in any case adopt that basis for arriving at the difference between different classes of freight service?

A. I think the St. Louis and Southwestern Railroad divide maintenance of way expense on that basis on the Paragould division. I believe Mr. Kimbell testified to that, with the exception that they make no extra charge for the engine mileage; or multiply by two and a half simply dividing it on a straight car mileage basis.

Q. What part of his testimony are you referring to; that in regard to the contract between the two railroads?

A. Yes, sir.
Q. I am asking you about a division of the amount, not a matter between two railroads, one owning the property and the other leasing it from the owner, and contractural elements entered into by them. I might estimate my property as worth so much and at the same time in renting it to someone charge them on a different basis. I might charge them more or less. That is no criterion. am asking you, and what you undertook to give, as I understand it, was the method in which railroads divide their own accounts. Now can you point out any instance in which such a division is made on the basis of car miles?

A. No, sir, not as to division of its own accounts.

2583 Q. Did you take into consideration in making this division the extent to which the different kinds of traffic used these facilities of station buildings and house tracks and facilities of that character?

A. No, sir; we just simply took into consideration car miles and the engine miles in making this division between local and through

service.

Q. I want to call your attention to the former testimony of Mr. McPherson in this case where he says trans-state freight, which is fifty-one per cent of the total freight, makes no use of station buildings, except that portion assigned for telegraph purposes, nor of house tracks where cars are loaded and unloaded, of team and public tracks where car load freight is received and delivered, nor of tracks to elevators and industries, such as mills, warehouses, coal and lumber buildings, and other facilities which are provided to care for traffic either originating in and destined to points within the state.

Now was any consideration given to that in making this division by you, to the facts set out there in Mr. McPherson's testimony in regard to using the facilities by trans-state traffic?

A. No separate consideration was given to it, no, sir.

Q. Could you properly divide the expense of maintenance of way and structure in the traffic which you include, trans-state traffic, as as ordinary interstate and local, without taking

into consideration those elements, if that statement is true? 2584

A. Well, it seems to me that they would affect the result so little as to a division of maintenance of way and structures expenses that a division on either a car mile or a gross ton mile basis

would be approximately correct.

Q. And he further testified—the same witness—that the main tracks of the St. Louis, Iron Mountain & Southern in Arkansas, including second track, is 1331.5 and side-track mileage is 509.41; of this side-track mileage 114 miles consists of passing track, which are maintained on the same basis or standard as the main track mileage; the other part of the tracks represent 395.41 miles, requires 2560 ties to the mile, and renewal of these ties represented by this mileage every five years, and so on. Now that is not used by trans-state trains, he further testified. Now could a division be made on the basis you have attempted, at the cost of maintenance of way and structures, without also taking that fact into consideration?

A. It don't seem to me as if that would affect the cost in any particular, owing to the classes of freight hauled, and the two classes of service being so inter-mixed, both classes of trains using the facil-

ities you have mentioned.

Q. Then you have a traffic in your interstate business that does not use that amount of tracks mentioned by Mr. McPherson? A. According to Mr. McPherson's statement. 2585

Q. I am assuming that is correct. A. There are some tracks there that the trans-state business don't use.

Q. There are 395 miles, isn't that a fact—practically four hun-

dred miles?

A. The cost of the maintenance of those tracks I do not believe

is kept separately.

Q. The point I want to call your attention to is if it was not requisite to ascertain that, make some allowance, average, in order to make a correct division that your exhibit is founded on?

A. No, I don't believe it would be necessary to make any allowance for that. It would be impossible to determine just what pro-

portion of the cost should be allowed for that purpose, if any.

Q. Well, isn't the trans-state freight charged, under your method, the same relative proportion of the cost of maintaining station buildings, house tracks, team and public tracks, tracks to industries, miscellaneous buildings, and this part of the side-track which is not used by trans-state trains at all, as is charged to the cost of handling interstate freight traffic?

A. Yes, sir; on each class of service charged the trans-state has its share of the expenses.

Q. There is a character of traffic there that you are charging on facilities that it doesn't use, isn't that true—I mean the cost of maintenance facilities it doesn't use?

A. If Mr. McPherson's statement is correct, there is a small expense there that is being charged to the trans-state that that service does not use.

Q. Now tell us what the size of that item of expense is?

A. I don't know.

Q. You have no means of knowing either, have you?

A. No, sir.

Q. And you really don't know whether it is large or small do you? A. No, sir; I just assume from the nature of the expense that it isn't very large in comparison with the whole expense, but that is

just an assumption on my part.

Q. Mr. Wharton, I believe you made an affidavit that was filed in this case at the hearing before Judge Vandeventer in St. Paul on the application for an injunction, didn't you?

A. Yes, sir.

Q. And in that affidavit you stated, did you not, that the ton mile basis was a proper method of division, and had no reference to the division between local and through trains?

A. Yes, that is correct.

Q. Didn't you also file in connection with that affidavit a letter from Haskins and Sells to the Attorney General of Missouri

2587 which contains the following statement:

"For the reasons given above, we consider that the ton mile basis is the most correct basis for the division of the expenses of maintaining ways and structures, and these reasons are also considered sufficient for the statement that there is practically no difference in the cost per ton mile of such maintenance, whether it be for through, inter-state, second class interstate or state"?

A. Yes, sir, I presume that is in the letter to Mr. Hadley. I have

no particular recollection of it now.

Q. Your recollection then was that the ton mile was the proper manner of dividing this expense?

A. Yes, sir.

2588 T. F. Wharton-cross examination resumed.

By Mr. MOORE:

Q. Mr. Wharton, in your division of the cost of maintenance of locomotives, you have added 50% to the mileage made by yard locomotives to provide for cost of extra maintenance due to the yard service:

How did you arrive at 50% as a proper allowance to make?

A. That was just approximated at that. We had no definite basis to use for that purpose, but in consultation we decided we would add that amount as representing the possible extra expense of that.

Q. That was an assumption?

A. That was an assumption, yes, sir.

Q. Then you have added 50% to the mileage of road locomotives in local service, to provide for possible extra switching mileage: how did you determine the percent to be added on that account?

A. Well, that is the same percentage that was used under the head of "Maintenance of way and structures", as I explained

2589 yesterday in talking about local switching.

Q. It was on the same assumption as it was in the case of "Maintenance of way and structures?"

A Yes, sir.

Q. And the additional 50% you have added to the switching mileage of the local train engines to provide for the possible extra maintenance due to switching service, was reached in the same way, I suppose?

A. Yes, sir, as just explained about the switching engines.

Q. Now, Mr. Wharton, you have stated that those were mere assumptions; that you did not have any data from which you could make any percent based upon facts known to you?

A. No, sir, no known facts or figures to work it on.

Q. The extra mileage that you have allowed in the way you speak of in the matter pointed out, amounts to about 118,000 miles, I believe—at the top of page 2—and that is nearly 50%, is it not, of the total mileage, between 40 and 50%?

A. You mean the total mileage exclusive of-

Q. I mean about 25% instead of 50%.

A. Almost.

Q. I have it worked out here. It is 23%.

A. I expect that is about right.

Q. So, you have added to that mileage in making your division practically 25% upon assumptions which were based upon unknown facts: is not that the case?

A. Unknown figures and data, but I don't know that the

absolute facts would be unknown.

Q. What did you have? You said a while ago you had no facts.
A. When I said that I meant visible facts. What we had was simply the result of conferences among ourselves and with some railroad men.

Q. And they were simply assumptions?

A They were assumptions based on those conferences and the knowledge that those people had about the matter.

Q. How is this expense divided between freight and passenger

service? It is on the revenue train mile, is it not?

A. I don't believe it is (referring to paper). Yes, the common maintenance and equipment expenses are divided on train mile

basis, between freight and passenger business.

Q. Mr. Wharton, is it not a fact that all engines are used interchangeably between freight and passenger service; that an engine may be today in yard service and tomorrow in road service; today pulling a freight train and tomorrow pulling a passenger train: is not that true?

A. I couldn't say as to that.

Q. You do not know about that?

A. No, sir.

Q. Well, assuming that it is true, should not this extra allowance of 75% that you have made, have been made before the division between freight and passenger?

A. No, I cannot say that it should have been. The rail-

road company did not see fit to do so.

Q. The railroad company did not make this extra allowance either, did it?

A. No, sir. They testified to various matters of that kind in the

testimony.

Q. The railroad simply divided the total cost of locomotive engines between freight and passenger, on the revenue train miles, did it not?

A. Yes, sir, which practically means the engine miles also.

Q. Does that mean engine mileage?

A. Practically, as I understand it. It may not mean absolute engine miles, but as I understand train miles and engine miles, there is very little difference.

Q. Have you acted on that assumption in making up these

figures?

A. No, sir, I have not acted on any assumption in regard to that

at all.

Q. Was it not necessary for you to know the difference and distinctions between these bases upon which estimates of that kind were made?

A. It was necessary for us to know the train miles and to know the engine miles, which are shown in our statement,

Q. You say you followed the railroad company's method: that was to divide on a basis of revenue train miles the total expense?

2592 A. Not the total expense, no, sir.

Q. I am speaking of locomotive maintenance: if you did not do it, tell me where you deviated from that, because it is my understanding that you did.

A. All expenses of a common nature are divided upon a train mile basis, but whether that included all the maintenance of engines,

I don't know

Mr. HILL:

Q. Are you speaking of maintenance of way or maintenance of equipment?

A. Maintenance of equipment.

Mr. MOORE: I am speaking of this branch of maintenance of equipment. It is divided into several branches. Locomotive maintenance is the one I am speaking of, now.

Q. You stated a moment ago that you followed the division made

by the railroad:

The question I have just asked you was if the railroad company did not divide the cost of maintenance of locomotives upon the basis of the revenue train miles, total cost? A. I stated that all common expenses of maintenance of equip-

ment are divided that way, and I did not know-

Q. If you intended to follow the railroad company's division of operation, the total cost, should you not have made your extra allowance before you made the division between freight and passenger?

A. No, I did not consider that necessary.

Q. If you were trying to act consistently with the action taken by the railroad company, you would have endeavored to do that, would you not?

A. That is a matter that I will have to give considerable thought

before I can say definitely just what I would have done.

Q. Now, to go back: If it is true, as I suggested in a question a while ago, that these engines are used indiscriminately in hauling freight and passenger trains, should not this allowance have been added before you made the division between freight and passenger?

A. No, I hardly think so.

Q. Can you give me any reason for your view about it?

A. Well, the only reason I have on the subject is that if the engines are used indiscriminately, they are also used in the passenger business between local and through service, and, perhaps, switching; and that the average on both sides, freight and passenger, would probably be about correct as divided by the railroad company.

Q. Is not that the very best reason for adding your arbitrary before

you make the divison?

A. No, I could not say so.

Q. That is the reason I have in my mind for thinking so, and I might say, it seems to me that that is a conclusive reason why you should have added your arbitrary before you made the division.

A. It does not seem to me so. It seems to me that the reasons I gave would be sufficient not to disturb the division

they had made.

Q. You made no allowance for difference in size and weight of engines, did you?

A. No, sir.

Q. Or the difference in the kind of trains they pull?

A. No, sir.

Q. You put them all on a level?

A. All on a level.

Q. Now to go back to the question I asked you a while ago: the expense of maintenance of yard locomotives is divided between local and through service on the basis of the number of cars of each class of service handled by yard engines during the month of October, 1907, on the exhibit relating to the Irion Mountain, and the month of October, 1908, in the exhibit relating to the St. Louis Southwestern Railway:

How did you arrive at the total number of cars handled at termi-

nals?

A. As I explained in my testimony yesterday, we took the total

number of cars shown by the wheel reports as going into the terminals, and the total number of cars shown by the wheel reports as going out of the terminals, for all the terminals where yard engines were maintained during that month, on both roads.

2595 Q. In dealing with that proposition, you counted every car that went in and every car that went out of a terminal?

A. That was the idea. I think that is correct.

Mr. Hill: As I understand it, that answer was correct so far as it went, but it is not complete. I want to call on Mr. Hamilton on that. I do not want to get it mixed up.

Mr. Moore: Do you want Mr. Hamilton to make a statement of

that now?

Mr. Hill: Mr. Wharton's answer is correct so far as it goes, but it is not a full explanation.

Q. (To Mr. Hamilton:) Will you please explain that, Mr. Hamilton?

A. It is just this: In working up that data we found that in a great many cases a switch engine was maintained at an intermediate yard, that is, a yard between the ends of the through freight train's or local freight train's run. We did not count the entire consist of the train into the intermediate yard and out again if it went through that yard, but only the cars set out or picked up there at the intermediate yard.

Mr. MOORE:

Q. Did you do that on all trains, both local and through, on the basis of all the wheel reports?

A. Yes, sir, all trains for the entire month; both local and

through.

Q. Referring, now, to the month of October, 1907?

A. Yes, that work was done by myself and assistants on the Iron Mountain, and by my assistant, jointly with an employé of the Cotton Belt, on the Cotton Belt road.

Q. How many terminals did you have?

- A. I have not the data here, but the points we called terminals were taken from the list furnished us by Mr. McPherson. I have the list.
 - Q. When did Mr. McPherson furnish you that?

A. I have not the exact date.

Q. Do you mean his testimony on the stand or off the stand?

A. No, a list given us at his office at our request.

Mr. MOORE:

Q. (To Mr. Wharton:) Mr. Wharton, what is the local and through car mileage shown on your exhibit "I," in the month of October, 1907, on the Iron Mountain road?

A. The local car miles, freight car miles, are 1,112,865.

Q. That is your number of local car miles?

A. Yes, sir.

Q. What was it including cabooses?

A. Including cabooses it was 1,173,350, on the local trains.

Q. What was the average number of local cars moved in that month as shown by this exhibit?

A. Do you mean per train?

Q. No, the average number of local cars?

A. Well, it gives the average number of cars per train. The number of cars moved was 1,173,350. 2597

Q. That is car miles?

A. Yes, sir.

Q. I am asking you the number of cars moved during that

month, as shown on this exhibit I, in the local service.

I will call your attention now to the statistics shown on that exhibit: "Average number of cars per train" is given there, and the "Number of trains run": Now, it seems to me you can ascertain that very easily by multiplying the average number of cars per train by the number of trains run-16.6 cars per train and 1,116 number of trains run.

A. Based on the average number of cars per train and the number of trains shown here, the number of cars would be 18,525.

Q. In the through service, your statistics show the average number of cars per train to be 33.2; and the number of trains run to be 2.758:

Give me the number of cars on through trains?

A. The number of cars run on that basis would be 91,565.

Q. Now, Mr. Wharton, if you divide this number of cars into the number of car miles that will give you the average haul?

A. Yes, sir, I think it would.

Q. What would that work out on local trains?

A. I did not work it out finally, but it would be about 60 miles on local and 70 miles on the through.

Q. Now, Mr. Wharton, is it not a fact that all the cars on 2598 the local trains run the full distance of the trains? Do you assume that to be a fact?

A. No, I do not assume that all the cars that they haul are

hauled the full length.

Q. If your average length of car haul is 60 miles for local service-that must be the case if your statistics are correct, because I call your attention to Exhibit "I," where you say the average length of run of trains in miles is 63.2 miles-if your car mile run is 60 miles and your train run is 63.2 miles, your cars-each car in the local train-must run about the same distance that the train does.

A. On the basis of the figures you are using that must be so.

Q. Do you think that is possible, Mr. Wharton?

A. No, sir, it is not possible.

Q. The same result would obtain in regard to the relation of car runs and train runs in through service; you say it is about seventy miles, the average length of run in miles on through trains: as stated in your statistics, it is 78.8 miles.

A. Yes, the point of that is this: in getting this average number of cars we do not get the actual number of cars handled by the train for the reason that the local train, while it distributes cars as it goes along, also picks up cars, and goes into a termi-2599 nal with practically the same number of cars it would leave So it would handle more cars than would be indicated by this figure.

Q. If that explanation is correct, your statistics here, where you undertook to give the average number of cars per train, do not in

fact give it, do they?

A. Yes, they give the average number of cars per train.

Mr. HILL:

Q. Per train, or per train mile.

A. Train mile.

Mr. MOORE:

Q. I say the average number of cars per train. You cannot switch it over to train miles,

A. That would be the average number of cars per train, just the

same.

2600

Q. If the average number of cars per train are shown to make an average run of sixty miles, it seems to me that that means that the cars average that: it cannot mean anything else but that each car averages that.

A. Not that each car averages that; not each car, but as a whole. Q. The number of cars you have is 16.6, local service, multiplied

by 1116 trains.

A. Yes, sir. Q. That gives you your number of cars: now, you have the car mileage that you worked out there and it seems to me that that, if it means anything, means that the average run of a car is 63.2 miles.

A. No. sir.

Q. That is what you said a moment ago when I asked you what that would be.

A. The average run of the cars that are in the train would be that much, but, as I say, they drop out cars and they pick up cars; the average car does not run through from the beginning to the end

of the run. The number of cars-

Q. Mr. Wharton, on that basis, then, in order to get an average of 63.2 miles, would you not have to assume that many of your cars on a train run, run a very much less and many of them a very much greater distance than the average run of your train? The average run of your train is 63 wiles: can you make that assumption that you run cars a much greater distance than the average run of your trains?

A. No, sir.

Q. Then you cannot work out that theory, it seems to me.

A. We cannot work out the theory that the train handled only · 18525 cars. We can work out the theory as expressed here. This statement made here is correct, but when we say the train handles only 18525 cars that is not an exactly correct statement.

Mr. HILL:

Q. Why is that not correct?

A. (No answer.)

Mr. MOORE:

Q. How did you get the average number of cars per train?

A. By dividing the train miles into the car miles.

2601 Q. Do you not think, Mr. Wharton, from the testimony in this case and the investigations you have made, that the average number of cars in the local train exceeds 16.6?

A. I have nothing to go on except the figures we worked out on

that.

Q. But what do you think about it?

A. I do not imagine that they exceed much more than one half

the cars on a through train.

Q. Mr. Wharton, do you know if the expense of repairs to locomotives is included in the common accounts under "Maintenance of Equipment" or not?

A. I expect that on some roads they are. I think some roads

make an effort to keep them separately.

Q. But I am speaking about this case. I do not want to know about any other roads just now than these two, the Iron Mountain and the Cotton Belt.

A. Yes, sir, I think they are included.

Q. Do you know, Mr. Wharton?

A. The accounts would indicate that in the statement filed by the Railway Company.

Q. Can you not answer the question more definitely than that,

Mr. Wharton?

A. No, I would not care to without looking into further data on

the matter, Mr. Moore.

Q. In the division of expenses of maintenance of freight cars you have set apart 21.5 per cent on account of the 2602 expenses of stopping and starting at way stations, and 13.5 per cent on account of terminal handling, on the authority of one, Mr. A. M. Wellington, who wrote a book on "Railway Location: do you know when that book was written?

A. It was probably first written about 1887. Q. It has been revised since, has it not?

A. I believe so.

Q. Has there been any revision made of those figures?

A. I cannot say. I did not see the original publication.

Q. Well, there has not in point of fact, Mr. Wharton, and I want to ask you if there have not been great changes in the methods of railroad operation, as well as accounting since 1887.

A. Yes, sir, there undoubtedly have been.

Q. Have not the views of railroad men upon that line of subjects undergone modifications and changes in the last few years?

A. I could not say as to that. Q. You do not know about that?

A. No, sir.

Q. Have you any information bearing on Mr. Wellington's means of knowledge and competency to deal with subjects of that sort?

2603 A. My undersanding is that this is a standard work among engineers; that is the only means I have of knowing.

Q. You do not know anything about the author's experience?

A. No, sir.

Q. In using those figures, Mr. Wharton, set up some twenty three or twenty five years ago, you do not make any allowance for changes in the methods of operation, do you?

A. Not since then, no sir.

Q. Now, after deducting about 35 percent (under Mr. Wellington's authority) you go on and assume that each car in local service receives two terminal handlings: therefore, you say "To each terminal handling of a car in through service, the local service should be charged with two times as much as the through service":

You were asked yesterday if trans-state freights were not carried on local trains to some extent and you said you could not answer. I asked you to look it up and tell me this morning: are you prepared

to answer that question now?

A. Yes, sir. Q. What did you find?

A. I found that 2,224,437 ton miles of trans-state freight were handled on local trains during the month of October, 1907.

Q. Did you charge that tonnage with terminal expenses

2604 in this exhibit?

A. Yes, sir.

Q. Do you think that is fair, in view of the testimony in this case as to the manner of handling trans-state traffic?

A. Well, I am not familiar with just the method of handling the trans-state traffic that was on the local trains, so I cannot answer.

Q. Then you do not know whether your basis is fair or not? A. As to trans-state I would not know without going-

Q. Yet you have brought it here as the fairest and nearest approximation to an actual division, have you not?

A. Yes, sir, and so consider it now.

Q. I observe that you made an allowance for two terminal handlings in the local service on the St. Louis, Iron Mountain & Southern Railway and for four terminal handlings on the Cotton Belt Railway, and you have charged the local service on the Iron Mountain exhibit with two times as much as through service and on the Cotton Belt you have charged four times as much. Why did you do that?

A. On account of the difference in the average run of local trains on the two roads.

Q. Explain what that difference is, please.

A. On the Iron Mountain the average run of the local train is practically the same as the average run on a through train 2605 On the Cotton Belt the average run of the local train is just a little over one half the average run of the through train.

Q. As I understand it, you are now dealing with freight cars?

A. Yes, sir.

Q. And you are endeavoring to ascertain the cost of maintenance of freight cars and you make this allowance of a difference of terminal handling in and out of stations because of the character of the traffic?

One class of cars, the cars in local service, would be likely to be handled more frequently than the cars in through service: that is

the basis, is it?

A. That is the basis.

Q. On each of these roads do you not deal with that problem on the basis of the service of the car? Is not that the foundation of your figures here, the service-I mean, the expense imposed upon the corporation in maintaining its cars, growing out of the use of the cars in this terminal service?

A. Naturally, the cars are maintained so they can be used in both

local and through service.

Q. Now, to put it a little differently: if each car is handled in the terminals to which it is assigned—if it is local—at the beginning and the end of its journey?

A. Yes, sir.

Q. Does it make any difference whether the journey is long 2606 or short, a long haul or a short haul?

A. Not as to one single run. It would if it ran over a division

point.

Q. If the average run of a local train is ten miles and of a through train twenty miles, each one of those cars receive the handling that will attach to it at the beginning and end of its run?

A. Yes, sir.

Q. Without regard to whether it is a short or a long run? A. Yes, sir.

Q. How can you by any possibility make a distinction? Explain

that distinction that you have made.

A. On the basis of a car mile the element of distance, of course, comes in, and the assumption that a car mile is the same as one car a thousand miles, or one thousand cars one mile-

Q. You are not basing this-

Mr. HILL: Let him finish.

A. All cars, as I understand it, in the local service—and this was the basis of the figures we worked out on the Iron Mountain-start out with the terminal handling at the beginning of their run and a good many of them will be dropped out along the run.

Other cars will be picked up during that run and carried

through the terminal to the end of the run. 2607

So, taking the train as a whole, the cars in that train have been handled two times, or rather, four times, where the cars in a through train going through there would be handled only two times; taking the trains as a whole, or the mileage as a whole.

Mr. MOORE:

Q. We are not dealing now with car miles, but with the number of cars handled.

A. We were dealing with car miles in this case. We are apply-

ing our division to car miles.

Q. Let me read what you say: "Assuming also that each car in local service receives two terminal handlings (that is, on the Iron Mountain, and four on the Cotton Belt) including handling at local stations, to each terminal handling of a car in through service, the local service should be charged" and so on:

You are dealing with the individual cars there. I know you divided the expense later on, on train miles, but you are dealing there

with the individual cars.

A. With individual cars as relate to the cars hauled by a train. A train starts from one point and goes to another. The cars we deal with are the cars in that train. The cars in that train, as a whole, are handled in the ordinary method of operation (as I understand it) on a local train twice, while the cars in the through train would be handled in those propositions.

Q. You stated it twice, but I will ask you again: how you arrive at the number of cars handled into and out of

terminals.

A. By counting them from the wheel reports.

Q. So it is not a matter of train miles. It is a matter of actual count?

A. In and out of terminals.

Q. And then you assume that, in order to equalize the expense growing out of the service, you doubled the number of cars that you Counted.

A. Not the number of cars we counted.

Q. You assumed that each car in local service received two terminal handlings: the local service, therefore, would be charged with two times as much as the through service. That means that you doubled the number of local cars. You cannot charge it without doubling that.

A. Doubling the local car mileage?

Q. No, you get the miles later on, Mr. Wharton. A. No, I do not see it that way. We double the local car mileage only in proportion to the mileage those local cars travel. As I understand it, they do receive nearly twice the handling the through cars receive in making the same mileage.

It impresses me differently, but I am Q. Maybe I am mistaken.

glad to have your explanation of it.

In ascertaining the number of cars in and out of terminals, 2609 did you distinguish between empties and local cars?

A. Not in the figures we have used here, no, sir. took all cars in and out of terminals.

Q. It is a fact, is it not, that there is a much larger percentage of empty cars in the intrastate movement and local trains, than there is in through trains?

A. I think that it is a fact in local trains there are more empty cars in proportion to the cars handled than in the through trains.

Q. Didn't the method you adopted disregard that fact, Mr. Wharton.

A. No, sir, not that I can see.

Q. Now, let us see with a view of ultimately ascertaining the expense of conducting intrastate as against interstate traffic: you take up this item of expense of keeping cars in repair: in order to arrive at it you count cars that go into and come out of terminals. You

count empties as well as loaded cars.

For illustration, there were five hundred empties in local service and two hundred and fifty in through service, in the month of October 1907, and you charge that—I am not speaking about which way it will work out—but you charge that without any discrimination as between the loaded and the empty, to the class it would be assigned to in your division.

A. In the maintenance of freight cars?

Q. Does it not derange the application of your formula, that is this part of your formula as to the ultimate result?

A. Not that I can see. I cannot see how it would.

Q. Now, going next to the traffic expenses: you divide them I believe, on a straight revenue basis?

A. Yes, sir.

Q. Why did you do that, Mr. Wharton?

A. We had no other basis that we could work up that would give us a result on that.

Q. Do you term that a "direct" or an "indirect" expense?

A. Well, I suppose a good portion of the traffic expense is a direct expense of securing traffic.
 A portion of it is an indirect expense of the total traffic expense.

Q. You state in your testimony in chief, that it might be possible to get a closer approximation of the traffic expenses if proper statistics were kept as to the freight that is influenced by the solicitors and other traffic men. In the interest of railroad accountants, I will be glad if you would tell how we can compile those statistics.

glad if you would tell how we can compile those statistics.

A. I would have to go into the office and study the situation more.
I will tell you what I had in mind then: the claims made by the traffic men themselves, over the country, as to the traffic they influ-

enced; the filing of reports by those men—that is what I had 2611 in mind. Those statistics would not be exact, but they would represent the claims of the traffic men at least as to what they thought they had influenced.

Q. What items enter into "Traffic Expense"?

A. Aside from the supervision there are the foreign agencies, advertising, stationery, and printing.

Q. Do those heads include salaries and expenses of freight traffic

managers and freight office force, do you know?

A. The classification of accounts of the Missouri Pacific-Iron Mountain Railway provide this as to the superintendence: The amount includes pay of freight traffic manager; assistant freight traffic managers; general freight agent; assistant general freight agents, and other officers in the freight traffic department.

Q. That includes their office force, too?

- A. The pay of clerks, chief clerks, and porters.
- Q. Also industrial agents and division freight agents?

A. I would have to depend on their word for that. I do not know, but I presume it does.

Q. Do not the labors of those officials have a great deal to do with the conducting of intrastate traffic in the State of Arkansas?

A. Well, I am not sufficiently able to pass on that, Mr. Moore. Q. If it does, it is chargeable to State business, is it not?
A. Yes, sir; any portion that would be applied that way, 2612

of their time and their effort and their expense.

Q. Just as an illustration: you know from your connection with this case, probably, that a great many of the forces that have been enumerated as coming under that head, have been at work for a long time in connection with the development of the testimony in these

Do you not think it is fair that that should be charged to the intrastate business of Arkansas?

A. Not all of it.

Q. Do you think any part of it should?

A. I imagine a small part of it should be charged up to the state business, but how much I do not know.

Q. Why do you say a "small part"?

A. Because I do not imagine that even in the building up of the industries there it would result in a very great increase.

Q. The matter involved in this litigation is the intra-state rates in Arkansas.

A. Yes, sir.

Q. That is the whole matter that is involved, is it not?

A. Yes, sir.

Q. And yet you say that a small part of the expense incurred in this litigation should be charged to that intra-state traffic?

2613 A. I did not understand you were talking about the expense in this litigation. I understood you were talking about the expense of these men in developing the state of Arkansas. I was mistaken about-

(Question read.)

Q. You understand the question now; what do you say?

A. I should say if any of this expense was included in the items here, it would be chargeable to the State of Arkansas, but just how much to the state business I cannot say.

Q. You said "charged to the State of Arkansas": my question was whether it would not be chargeable to the intra-state traffic in

the State of Arkansas.

Mr. Wharton, my question is not with reference to how the expense of this litigation shall actually be charged. It will, perhaps, have nothing to do with the issues involved in this case:

I am asking you these questions for the purpose of getting the views on which you, as representatives of the state accountants in

this case, acted in your division of expenses.

What I want to know is, is an expense of that character (I merely mention this case to illustrate, not as affecting any issue involved in the view on which you acted, properly chargeable to intra-state traffic in Arkansas?

2614 A. If I understood you, you are simply referring to the work of traffic men, or any other official, in connection with litigation of this kind.

Q. Yes, anybody-

A. Well, in view of the fact that it is an action of the roads themselves attacking existing rates, I do not know whether it is properly chargeable to intrastate rates or not.

Q. Under the head of transportation expenses you have "station expense": I wish you would state first what you include in "station

expense."

A. We have included station service, station supplies, telegraph

and telephone operation, and station policemen.

Q. You have divided the expense between intrastate and interstate business on the basis of the number of tons of each class of traffic, assuming that each intrastate ton was handled twice and each interstate ton once: is there service of that character rendered to transstate freights?

A. I am not familiar enough with the handling of trans-state

freight to say, Mr. Moore.

- Q. If there is not, or if there is a less amount of service based under this head, which is not attributable to trans-state freight, would it be proper to charge that with the same amount of station expense as the other interstate freight which is distinguished from the trans-state?
- A. There is so much interstate freight that is handled two and three and four times that it seems to me that in taking the whole interstate freight and considering that it was handled once, including the trans-state, you are doing no injustice at all to the interstate.

Q. You have acted on that principle, then?

A. Somewhat, and we were guided somewhat too, by Mr. Dod-

dridge's testimony in the case as to the handling of freight.

Q. Didn't Mr. Doddridge state in his testimony in this case that doubling the state passenger and adding that to the total interstate passenger, was charging too much to the interstate traffic and that the same thing applied to the freight traffic?

A. I think he said that, but rather qualified it; he thought it

might be a fair method.

Q. After his attention was called to it he stated that?

A. I think he said it might do a little injustice to the interstate basis, but after all he thought it was a fair basis. That is my recollection. The testimony will speak for itself on that point.

Q. I do not think you will find that Mr. Doddridge supports you

in that.

Now, this station service includes the labors and service of the agent at the station, does it not, and the cashier, stenographer, clerks, collectors, bill clerks, platform foreman, truckmen, scale men,

sealers, car men, receiving men, delivery men, weigh-masters, 2616 warehouse men, and so on: the services of all of those man are represented in this item, are they not?

A. It does include those.

Q. The point I want to get at is: you do not think any of that character of service is applicable to trans-state traffic, do you?

A. I stated that I do not know just what station service the trans-

state business did receive, so I could not say, Mr. Moore. Q. What does "yard and terminal expenses" include?

A. It includes yard supervision, yard men, yard engine men and firemen; fuel for yard locomotives, yard enginehouse men; operation of fuel stations for the yard service; water supply for yard locomotives; stores for yard locomotives; other supplies for yard locomotives; yard signal men; yard policemen and yard signal supplies.

Q. These expenses are divided between local and through business

on the basis of the number of cars handled at terminals, are they

not?

A. Yes, sir. Q. Have you made the same allowance for terminal bandling of cars there that you did under the head of freight cars, to which I called your attention a while ago, where you made an allowance of two terminal handlings in local service to one terminal handling in the through service on the Iron Mountain and four on the Cotton Does that apply to this? I am asking for information: I do not know.

2617 A. No, sir, it does not.

Q. Mr. Wharton, is it not a fact that there is more terminal service rendered to the cars in local trains, in the manner in which those trains are handled, than there is in through trains?

A. I am hardly qualified to pass on that point.

Q. Was that discussed by you and your associates in adopting this basis of division?

A. That was discussed, yes, sir.

Q. Did you give no consideration to that feature of it? A. Yes, that was given a great deal of consideration.

Q. Did you come to the conclusion that there was no difference in the cost of the amount of service rendered as between local and through trains?

A. As to the cars handled at terminals where yard engines were

maintained.

Q. In making up this statement, you disregarded any claim that might be made for extra expense in handling cars in local trains?

A. Yes, at these terminals.

Q. Tell me just what you mean by saying "these terminals."

A. As distinguished from the cars handled by the local train itself between terminals. That is taken care of in local train expense.

Q. Assume that a train hauling fifteen cars comes into a 2618 station—we will say Hoxie—and it is handled in the ordinary way that a train of that kind is handled-it pulls in and then goes out: how many handlings do you charge to the cars in that train?

A. We charge the handling in and the handling out as figured

here.

Q. In other words, you charge two handlings to the cars in that train?

A. Yes, sir.

Q. In making your division of the cost of fuel under the head of "Fuel and locomotive expenses" you were governed by the test made on the St. Louis Southwestern Railway to October, 1908, were you not?

A. Yes, sir, we followed that test.

Q. In that you covered all locomotive supplies did you not?

A. We cover locomotive supplies in our figures.

Q. Fuel, water, and so on?

A. Yes, they were not included in the test on the Cotton Belt, they only included——

Q. To have that clear, I will ask you that question: what do you

include in this head of "Fuel and Locomotive expenses"?

A. We include fuel; operation of fuel stations; water supply for road locomotives; stores for road locomotives, and other supplies for road locomotives.

2619 Q. All of that expense is divided in your formulas used in each one of these cases, on the basis of the test that you say was made on the St. Louis Southwestern Railway in October, 1908?

A. It is applied here on an engine mile basis, using that test as a

basis for making it; yes, sir.

- Q. Did you have any information in regard to the similarity or dissimilarity in the conditions that existed on the St. Louis Southwestern Railroad in October, 1908, and October, 1907?
 - A. I think Mr. Doddridge gave some testimony as to that.
 Q. I wish you would turn to that if it has any bearing on this.

A. (Witness producing volume:) It is in volume 2, pages 106 and 107 of the printed record.

Q. Just read that part of his testimony that you refer to in the record, please.

A. Do you want me to read the whole of it?

Q. What you relied on.

A. I relied on all of it that is set out here.

Q. You stated that you thought Mr. Doddridge's testimony justified the assumption that the conditions which existed on the St. Louis Southwestern Railway in October, 1908, bore such similarity to the conditions which existed in the preceding year, 1907, as to justify the application of that test to the earlier period:

2620 In the testimony you have referred to, at pages 106 and 107 of volume 2 of the printed record, was Mr. Doddridge not referring to the correctness of applying a test made on one road to another road? For instance, the test made on the Cotton Belt to the Iron Mountain? Was not that the matter to which he was referring to instead of the application of the test made at one period to a period of another year?

A. I cannot say as to that. I gathered the impression from his testimony that he considered the relative fuel consumption on the Iron Mountain, local and through, practically the same as on the

Cotton Belt, local and through, as shown by this test.

Q. Upon what data do you base the assumption in dividing these "engine house expenses" that the local engines require twelve per cent more engine house service per engine mile than a through engine?

A. On the basis of the average length of run of the local and

through train.

Q. Please turn to those per cents and tell me what they are. A. The average length of local is sixty three and of through it is seventy one.

Q. As appears on Exhibit "I"? A. Yes, sir.

Q. And you base it on that?

A. We base it on that. 2621

Q. What is included in "engine house expenses"?

A. Just engine house expenses. Just the one item of engine house expenses. This is the road engine house expense and not any yard engine house expense.

Q. I see in dividing expense of "road engine men and train men" you have taken actual figures: how did you get that; that is, how

did you get the local and how did you get the through?

A. Mr. Hamilton worked that and I am not familiar with the detail.

Q. You do not know?

A. No, I would rather that you ask him about that.

Q. You adopted the percents that you found on application of the statistics for October of 1907, on the Iron Mountain?

To the six months we did.

Q. How did you get it in regard to the St. Louis Southwestern Railway? Did you use the actual test made by that road?

A. In October, 1908; yes, sir.

Q. Mr. Wharton, what is included under this head of "other train

expenses"?

A: Freight car lubrication; train supplies; road signal men; highway crossing watchmen; signal supplies, road; clearing wrecks; injuries to persons; stock killed and damage to property; operation of joint tracks; flood damages; operation of stock yards and

elevators; highway crossing supplies.

Q. Do not the items of "injuries to persons," "stock killed" and "damage to property" constitute a large proportion of the total of that class of expense?

A. Yes, sir.

Q. It is about 73 percent, is it not?

A. No, it would not be quite that much, Mr. Moore. You just said injuries to persons, damage to property and stock killed?

Q. Yes. A. It is about 57 percent.

Q. You say it amounts to 57 percent?

A. Yes, sir.

Q. Could not that have been worked up-referring now to that part of the expense which consists of injuries to persons; stock killed and damage to property-and charged to local and through trains just as conveniently as you did in the next item of "loss and damage"?

A. Well, I am not familiar with their method of handling those

accounts, so I cannot answer.

Q. You cannot answer as to that?

A. No, I cannot.

Q. Can you assume, reasonably, that the amount and value of stock killed during the month of October; persons injured; or damage to property, would be any criterion as to what the 2623 amount would be in another month?

A. This is the amount for six months. I should say that it would not be any criterion as to what would happen the next month, but I presume the claims average up pretty well about the same amounts.

Q. Is not that a character of expense that is divided on the actual fixed and located charge; is it not a charge easy of allocation?

A. I should think a great many of the charges would be, but, as I say, I am not familiar enough with their handling of accounts to answer that.

Q. In "loss and damage to freight" the very next iten, you based your division on the actual claims paid during the month of October, did you not?

A. Yes, sir. Q. And yet the same items, practically, under the head of "other train expenses" you divided between local and through in proportion to the train miles for each class of service?

A. Yes, sir.
Q. Why did you not treat them alike?
A. We had no particular difficulty in getting at the loss and damage claims, but we assumed we would have considerable difficulty in making any segregation of the other expenses.

Q. You did not have the courage to tackle that problem?

A. We did not have the courage to tackle that. 2624

Mr. HILL:

Q. Just to save re-direct, I wish to ask Mr. Wharton what percentage this particular claim would amount to.

A. It is about two and one half percent of the total operating

expenses.

Mr. MOORE:

Q. What do you include under the head of "supervision and general"?

A. Superintendence; stationery and printing; rents of buildings;

and incidentals.

Q. Explain to me why you have applied those expenses under that head on the basis of direct charges, local trains, through trains, intrastate traffic and interstate traffic.

A. Well, the theory is that the supervisory expense, the general expense which goes with the supervisory expense, more nearly follows the direct expense, any particular direct expense, than it follows anything else. It is the measure of supervision that is necessary for the expense that precedes it. That is an accounting principle that is frequently applied on expenses of that nature.

Q. How did you distinguish between that part of expense which you have applied to train costs and that part which you have applied to other costs?

A. Just as given in the methods explained before: under the head

of each one of those sub-items.

Q. That is to say, you assume that some are a direct charge 2625 applicable to train cost and others a direct charge applicable to traffic: is that what you meant?

A. Yes, sir. Q. Tell me what you mean by that term "direct expense" and

"indirect expense": I would like you to explain that.

A. The term "direct expense" as it is used in here, means the expense applied on one basis or another, the one that seemed most just to us, or the one that has been suggested by the testimony. That is what the term "direct expense" means in this exhibit.

Q. Let us take it in its application—because it is used in all these

divisions-its application to "maintenance of equipment":

Under your sub-headings you speak frequently of direct expenses and indirect expenses, and you adopt a different basis of division, too, in regard to that as applicable to, say, "maintenance of equipment": give me the distinction between the direct and the indirect expense.

A. In the application of what have been called the "general and supervisory expenses" right through here we followed exactly the same plan in the division on the basis of whatever had been applied above it as direct, or as near direct as we could make the application. There is no difference between the application of the general and

supervisory expense in each case. It all applies on a basis of

2526 the expense apportioned above it.

You say station expenses cannot be applied to transportation expenses because they are not train expenses; of course we all understand that, but they are an expense, are they not? They cost you an expense that is essential to the transportation of freight because that involves a handling of freight that is carried on the cars.

A. That is true.

Q. You could not transport freight without providing for handling it?

A. That is true, but you handle it before you transport it and

after you transport it, so we set up the handling separate.

Q. Is not damage to the track, "by the elements" as it is called, or the cost of repairing telegraph poles or some structure that may be on the track and which is not actually used by the trains in passing, an indirect expense just about in the same sense in reference to the "maintenance of way and structure" charge, that "station expense" is in relation to transportation charge?

A. No, I would not consider that they were of the same nature

at all.

Q. Do you not think they are analogous?

A. No, I would not say so.

Q. Mr. Wharton, will you furnish me with a statement showing the amounts charged under each of the sub-heads that follow "maintenance of equipment" in your exhibit "J"?

That is, under the heading of, (a) "locomotives; yard; road"; and under (b) "freight cars"; (c) "supervision and general"?

Then, under the heading of "transportation expenses" the items opposite the letters from (A) to (H) inclusive? That is to say, each of the sub-divisions of transportation expense on the St. Louis Southwestern Railway and also on the St. Louis, Iron Mountain & Southern Railway?

A. You mean just the several accounts that go under each of

Q. Yes, both freight and passenger. Exhibit "I" and exhibit "M": both.

A. Do you want those as formal statements or just for your own

information?

Q. As formal statements.

Q. Mr. Wharton, did you get those statements for me? 2628 A. It will take me some little time to prepare those.

will have them for you in the morning.

Q. What is your personal view as to the percent of freight car expense that would be attributed to terminal handling for the purpose of making repairs growing out of switching?

A. Is this on the maintenance of freight cars?

Q. Yes.

A. I cannot say that I have any personal view on this subject.

Q. What is your view as to the total expense of repairs of freight cars, attributed to repairs from stopping and starting at way stations?

A. I have no personal views on that subject. All I studied up has been what I looked up in Mr. Wellington's book.

Q. On terminal handling you have no personal view? A. No, sir.

Q. Mr. Wharton, the result of this formula, or exhibit K, insofar as "maintenance of way and structures" are concerned, is "that the total charge to freight service is divided between local and through

trains on the basis of the total engine and car miles in each class of trains, allowing fifty percent additional mileage to

2629 the local trains for station switching and adding 150 percent to all engine miles to get the equivalent in car miles, charging the trans-state freight, which is 51 percent of the total traffic, with an equal proportion of the total expense of each class of trains based on the amount of tonnage in the trains; and disregarding the fact that maintenance of station buildings and side tracks other than passing tracks are not chargeable to the trans-state freight;" is not that the result of your formula of division?

A. Practically, I think; as near as I can understand the question.

Q. Is it not true that the total charge for repairs to locomotives and freight cars is made practically upon the mileage of the equipment, with added percentage to cover switching service and terminal handling, some of these percentages being based upon conditions in 1887? I am referring to Mr. Wellington's statement as to the percents. This includes both?

A. Yes, sir.

Q. But making no allowance for lighter loading of state freight, for the greater use of cars in state traffic, nor for the greater empty movement required in short haul state business: is that correct?

A. No, it is not.

2630 Q. In what respect is that incorrect?

A. The charge of the local business is for all the cars moved in trains, whether empty or loaded; whether half loaded, quarter loaded, or of company material. The expense is all there and it is taken care of. The same applies to the through train. Those elements are taken into consideration in that regard.

Q. Do you mean to say that the statement that no allowance is

made for the lighter loading of state freight is not correct?

A. I do not think that is a correct statement, no. The entire cost of the local train is there, whatever the loaded train may be loaded with, state or interstate freight; or maybe it is loaded lighter or heavier. The entire cost is there. That is the reason I cannot see the point of your—

Q. Do you make any allowance for the larger movement of empty

cars in local service?

A. The cost of the hauling of those empty cars is all there. It is

part of the maintenance and is all there.

Q. In this division you make, you make no allowance? You charge the expense of hauling empty cars the same as if they were loaded cars and divide the expense on that basis?

A. The total expense of the train; not on the basis of empty cars,

but of the freight it carries, whether loaded or empty.

Q. You do not distinguish between a car that is empty and a car that carries 40,000 pounds?

A. Not as to maintenance expense, no, sir.

Q. Either as to the maintenance of the car or as to the effect that the weight of the car may have upon maintenance of way?

A. As to both maintenance expenses; maintenance of way and

structures and maintenance of equipment I mean.

Q. Is that statement correct, except as you indicated a moment ago?

A. Your statement that you made originally?

Q. Yes.

A. I would not care to say so. I would rather hear it again. (Question read.)

Q. After hearing it re-read what do you say?

A. The whole statement is based on the fact that I objected to in my answer, so I would not say that your statement was correct at all.

Q. You referred in your answer to the cars carrying company material: I thought your statistics upon which you based your formulas were based exclusively on revenue freight.

A. Yes, they are-

Q. Do you include Company material?

A. What I meant was cars loaded with company material.

The maintenance of those was-

2632 Q. All other items than those that have been enumerated, of equipment, are divided on the basis of the percentages ascertained in the division of locomotives and car expenses, are they not?

A. Are you referring to "supervision and general"?

Q. I am referring to all items under the head of "maintenance

of equipment."

A. There are three items under that head: "maintenance of locomotives"; "maintenance of freight cars" and the other is "supervision and general."

That "supervision and general" is based on the charges that are arrived at under the head of locomotive and freight car mainte-

nance.

Q. That is on the same basis as the other?A. Practically.

Q. It is correct?

A. They are all on a locomotive and car mile basis, with proper

allowances. Q. You divided "traffic expenses" on a basis adopted by the Rail-

road Company?

A. On a gross revenue basis: what they call a "straight revenue basis."

Q. In your formula "station expenses" are divided on the assumption that every ton of state freight has the use of two agents and two station forces; that every ton of interstate freight

has the use of one agent and station force, and every ton of trans-state freight has the use of an agent and a station in Arkansas, even though it is billed and loaded at Kansas City, Mo. and delivered and collected for at Alexandria, La.?

A. They are divided in a comparative sense on a basis of all state business having two terminals within the State, as compared with one terminal for all interstate business, including trans-state.

Q. But the result in its practical application is what I stated in

that question, is it not?

A. No, I would not care to take that unqualifiedly.

Q. In what respect is it not?

A. As I stated in my testimony before, I think, lots of the interstate business has two, three and four terminals handlings in a state; lots of state business has three and four handlings and I doubt not that a good deal of trans-state business is handled at times in the state. So that the figures we have used here are a good deal in the comparative sense as to the relative handling of the two classes of traffic.

Q. I am not speaking of terminal, I am speaking of "station ex-

A. I am speaking of "station expenses." I should not have said terminal.

Q. What do you mean when you say that some interstate
freight has three and four handlings in connection with station expense? I understand what you mean in connection
with terminal expense, but not "station expense."

A. Cotton, for instance, must have more or less, two or three handlings in the state. I think the testimony indicates that. I be-

lieve it indicates that grain does.

Q. In what sense are you using the word "handling"?

A. The station handling and the work that has to be done around a station to take care of the freight—the billing, checking, etc. I am not familiar with the details and am testifying a good deal from hearsay in that particular, and what I have read.

Q. If you leave cotton out—

A. I should say that a good deal of freight comes in from junction points; is unloaded and loaded again; goes on to its final destination, and would have two handlings. Interstate freight I was thinking of then. For instance, freight in or out of Memphis; or freight in and out of Fort Smith. Those are items that I had in mind when I spoke of interstate having more than one, and state more than two handlings.

Q. Have you excluded the theory that some parts of intrastate freight may have more than two handlings? Is not your formula

based on that basis?

A. It is on the assumption strictly that the state business is handled twice to each handling of intrastate, including transstate.

Q. With the application of these station services, such as the use of an agent, loading, unloading and so forth to transstate freight, although it may not be handled in Arkansas?

A. It is included in the interstate and has its share of expense.

Q. "Yard expense" is divided in your formula on the basis of the number of cars handled at terminals without regard to the class of traffic or length of haul, or any other factor, except the number of cars, is it not?

A. That is the only factor, the number of cars handled at termi-

nals.

Q. "Fuel and locomotive expense" on the Iron Mountain has been divided on the basis of the cost on another railroad, at a period of one year later than the period under investigation.

A. The comparative engine mile cost on the other road; the cost

per engine mile for the use of fuel.

Q. Wrecks; personal injuries and damage to property, not on the train, is divided on the mileage of trains; and other items of a miscellaneous nature are divided in proportion to the expense ascertained in various ways and by various percentages in other accounts?

A. Yes, sir.

Q. And it is true that the only item divided upon an an actual basis and without the element of speculation or assumption, was "loss and damage to freight in transit," is it not?

A. That was actually worked out for one month,

Q. I asked you if the only item divided on the actual basis, without the element of speculation, is not "loss and damage to freight."

A. It was worked out actually for one month, as was also the road engine and train men pay-roll. All the other items are divided as

indicated on the various bases stated.

Q. Mr. Wharton, in your reference to road engine men and train men, which you say are on the division of expenses, was that an actual division of actual expenses for the month of October, 1907?

A. It was intended as such. The instructions were to get the

actual expenses for that month, for that purpose.

Q. For both local and through?

A. That is my recollection of the instructions. I am not really positive as to that-

Q. Do you know how each one was associated?

A. I do not know. Mr. Hamilton is entirely familiar with the details as to that. It is possible on that, Mr. Moore, we have worked up only the local train.

Q. You cannot state, then?

A. No, I cannot be positive about that. I would have to consult Mr. Hamilton about that and find out.

Q. Referring to your division of "loss and damage to 2637 freight" and "engine men" which you think was worked out on actual cost: you applied that though to the six months' business for the last half of 1907, on an assumption that the same ratio would apply to the six months as would apply to the month of October?

Yes, sir.

O. Mr. Wharton, after you had worked out all these various formulas, you divided the total expense of operation for the six months, excepting traffic expense, station expense, loss and damage to freight, and a small part of supervision and general expenses, between state and interstate traffic on the ton mile basis, did you not?

A. Yes, sir.

Q. And the amount divided on the ton mile basis was 83.3 per cent of the total operating expenses for the six months, was it not?

A. That would be about the right percentage, yes, sir.

Q. Is that what you call "whipping the Devil around the stump"?

A. No. sir.

Q. Is the result of the division of expense between state and interstate traffic, on the formulas fled by you, not the same that would result from the application of the straight revenue basis, without any allowance for extra expense in conducting state traffic?

A. It is almost the same as the straight revenue basis, but 2638 not quite.

Q. It is practically the same?

A. On a straight revenue basis the percentahe of intrastate business to the total is 13.41 percent and the expense 12.81 percent.

Q. What result do you get by multiplying the total expense by 13.41 percent; what are the figures?

A. You mean taking the total expense?

Q. \$3,073,843.40 multiplied by 13.41 percent.

A. \$412,000.00 in round figures, as the operating expense; about \$18,000.00 more than the figures worked out on this (indicating exhibit). This just includes the straight operating expenses on the Iron Mountain road.

Q. Now, does the result work out practically the same way on the

Cotton Belt Line?

A. On the Cotton Belt 9.78 percent of the freight revenue is state and 10.83 percent of the freight operating expenses are state; some-

what above on the straight revenue basis.

Q. What is the difference in figures between the result of the application of your formulas of division between state and interstate on that basis and a straight revenue basis; the figures presented by Mr. Kimbell?

A. On a straight revenue basis the state business would cost \$90,500 as compared with \$100,000 that we show—just in

2639 round figures.

Q. Now, going to the formula prepared by you and submitted here in connection with passenger traffic, I want to ask you if you made division there as between local and through service?

A. No, sir.

Q. Why did you not?

- A. We had no basis for the division of the expenses ascertained in that way. We did not have the passenger miles by local and through trains.
- Q. On Exhibit "M" I find this statement: "As nearly all passenger trains on the St. Louis, Iron Mountain & Southern Railway Co. do a local business, we have not considered it necessary to make any division of expenses as between local and through service."

That is what you say on that exhibit: is that your reason?

A. That was one of the reasons and the other was also a reason. Q. Would not that reason apply just as well to a different division of local and through freight expenses?

A. No. sir.

Q. Is not freight business divided between each class of service?

A. Yes, local and through, and the passenger business is divided between local and through-Mr. McPherson in his classifi-2640 cation-

Q. Is not the freight business-

A. —of passenger trains assigned only a very few trains as through trains, all the rest as local trains-most of the trains-

Q. You acted then upon the basis of Mr. McPherson's testimony in that respect, did you?

A. Yes, as to local and through trains in the passenger business.

Q. Assuming that that was a correct statement?

A. As to the local and through trains, Q. You divide the expense between coach, Pullman, mail and express service, on a car mile basis?

A. Pretty generally.

Q. Under the head of "Maintenance of way and structures"?
A. Yes, sir.

Q. How did you get at the mileage of coaches, Pullman cars, mail cars and express cars, respectively?

A. That was worked up under Mr. Hamilton's direction and I would have to ask you to get that information in detail from him.

Q. You do not know how it was worked up?

A. Not in detail, no, sir.

Q. You would not be able to explain, then, these divisions that were made?

A. I can explain the divisions of expenses, but not the method of getting at the coach and Pullman car mileage in detail.

Q. You have divided all the expenses of "Maintenance and equipment" in the passenger service, except "Supervision and General Expenses" on a car mile basis, I believe: have you not?

A. Yes, excluding in the case of passenger train cars the main-

tenance of Pullman cars.

Q. Under the head of "Station expenses" you have made an allowance of ten cents a day for the handling of mail at certain stations: what stations were those?

A. Stations where there are agents, in that case. Q. How did you arrive at that ten cents a day?

A. In the testimony of Mr. O. L. Teachout, given before the Commission which investigated the postal service in 1900, Mr. Teachout based his station handling of mail on that rate and we simply followed the basis.

Mr. Teachout at that time was the general agent of the mail department of the Missouri Pacific, Iron Mountain, Cotton Belt, International & Great Northern and Kansas City Northwestern Railways.

Q. Will you indicate the volume and the page from which you obtained that authority?

A. Part 1, page 302. In the little expression used he said:

"I am charging for the handling of mail between stations ten cents a day."

That is the only place we found that and we simply followed that in this case, as a small part of station expenses undoubt-

2642 edly does attach to the handling of mail.

Q. What do you include in "Supervision and General Expenses" under sub-division (c) of Maintenance of Equipment?

A. I include the repairs, renewals and depreciation of work equipment superintendence; personal injuries; repairs of tools and machinery; shops; heating and lighting; watchmen; stationery and printing; incidentals, and a credit for repairs of equipment used in joint yards, etc.

Q. That is in connection with repair shops, is it?

A. It is in connection with the "Maintenance of Equipment."
Q. I want to know if those different items you mention are the expenses that arise in the operation of the shops, the repair shops?

A. I don't suppose all of them are, but a good many of them are.
Q. You speak of personal injuries in connection with repair shops:
just look and see.

A. (After referring to exhibit:) This amount of personal in-

Q. I am referring now to "Supervision and General" under the head of "Maintenance of equipment."

A. I thought you asked me specifically about personal injuries. You mean the whole "Supervision and General Expense"?

Q. I am referring to the sub-head of "Supervision and General Expense" under the head of "Maintenance of Equipment."

A. They all relate to the "Maintenance of Equipment" the shop expenses and other items connected with "Maintenance of Equipment."

Q. You enumerated what entered into that particular sub-head a while ago, and you mentioned repairs and personal injuries: Is that personal injuries in connection with shops that are maintained for the purpose of keeping up and making repairs to equiment? That is the point I want to know. It is all a branch of expense, connected with the keeping up of equipment of the company?

A. Yes, it is all connected with that "Maintenance of Equipment"; not necessarily in the shops, but in connection with the

"Maintenance of Equipment" wherever it may be.

Q. What part of the expense have you charged to the Pullman cars?

A. Just the proportion of the locomotives—Q. It is 13.88%, is it not?

A. 13.88% to Pullman cars.
Q. Are Pullman cars at all handled in the shops of the railway companies?

A. The engines are.

Q. Are the Pullmans, the cars themselves?

A. I think they are to some extent. I am not familiar with that, but I have an impression that whenever repairs are required.

Q. You think it proper to charge a part of the repairs to Pullman cars?

A. Yes, I think so.

Q. Suppose you are mistaken about that?

A. I don't think I am.

Q. If you are mistaken, then, it would not be proper to charge any of the expense of repairs to the Pullman.

A. Of the engines, it would be.

Q. I am speaking of repairs to the cars.

A. We are speaking of it here where we spoke of "Supervision and General"; all repairs, whether locomotives or cars.

Q. I understand, but a portion of that is repairs to the cars themselves?

A. Yes, sir.

Q. If Pullman cars are not handled and repaired by the railroads would it be proper to charge any portion of that expense to

A. Yes, it would be. The "Supervision and General" naturally takes in everything that is repaired there. The locomotives are repaired there and the locomotives pull the cars, and their expense passes back over the trains.

Q. Assuming now, to meet your view, that 1% of the expense incurred under this head was for repairing locomotives; Now, lay that

aside: say you attribute that to Pullman cars: should any part of what remained be charged to it?

A. We don't charge any part of other maintenance. Just the portion that is charged under the head of locomotives.

Q. Under the head of the division of cost of coach and 2645Pullman service, between intrastate and interstate, you have divided the cost of Pullman service between intrastate and interstate business on the basis of 25% intrastate and 75% interstate: where did you get those percentages?

A. Those were just arbitrary percentages based on just general knowledge about the use of Pullmans, but no detail figures back

of them.

Q. What do you include under the head of "Traffic Expenses"

in the division between passenger expenses?

A. It includes superintendence; foreign agencies; advertising, stationery and printing.

Q. It is the same thing you stated in connection with the freight

traffic?

A. Practically, the same, yes, sir.

- Q. What has that to do with the mail and express business of railroads?
- A. On the revenue basis, I think it has just as much to do with that as the passenger traffic.

Q. On the theory that you are going on?

A. I have no theory on it.

- Q. You have charged 11.63% of that to "mail" and 7.70% of it to "Express:" is there any part of it applicable to those branches of service?
- A. The only theory on which it can be divided on a revenue basis is that each part of the revenue should stand its share of the expenses. That being the case, it applies against "Mail" and "Express."

Q. In other words, you agree with the revenue theory when it

comes to-

A. No, I am not giving this as my basis. I am simply following out the revenue theory of making divisions.

Q. So, you followed the revenue theory there, Mr. Wharton? A. We took that as we did because we had no other on which to divide it.

Q. You frightened me very badly at the outset, because I thought you were going to divide it on a basis of facts. I was afraid you were going to present here endless facts, but this is a deviation from that basis.

A. We qualified in each case by stating that the traffic expenses

we have no basis of dividing.

Q. You make the traffic expenses an exception?

A. Yes, sir.
Q. Mr. Wharton, if you were really trying to get the actual expenses chargeable to traffic, would you apply any of it to mail? If you were trying to get at the actual facts?

A. I would have to go into the offices and see how they handle

the "Mail" and "Express" in their traffic department. I would not be able to give you an answer without such an examination?

Q. We have a contract here. Have you seen that contract? You say that you have read the evidence. We have a contract between the railroad company and the gov-

A. I presume there must be some traffic expense in there charge-

able to "Mail" and "Express,"

Q. We have a contract under which the mail is carried and we have the contract between the Express Company and the Railroad Company: I suppose you know what they are?

A. I know in general what they provide.

Q. If you were making an actual division on a basis of actual expenses incurred, would you charge 19% to mail and express?

A. I could not answer that without going into the matter very thoroughly, and knowing the traffic expenses incurred in mail and express business handled.

Q. You have made this division without going into the matter?

A. I have, without going into that matter at all. Q. There is a good deal of theory about that?

A. It is all theory, as far as traffic expenses are concerned.

Mr. HILL:

Q. Is it your theory or the railroad company's theory?
A. The railroad's theory.

Mr. MOORE:

Q. You take what is good and leave out what is bad?

A. I would not say we took what was good. We took what we had to.

In that connection, I might add to that, Mr. Moore, (I 2648 just thought of it now): Referring to this testimony before the Postal Commission, the railway companies always included on a car mile basis a portion of traffic expenses in figuring the cost of mail service.

I believe there is a statement in one of these by Mr. Johnson,

the Auditor of the Cotton Belt, on that very point.

And I might say further, also, it occurs to me now that in a case tried before the Interstate Commerce Commission (Case No. 1028, entitled Kindel vs. Adams Express Company) Mr. Peabody, of the Santa Fe, filed a statement showing the cost of express business and also included traffic expenses on a car mile basis, as a portion of the cost of doing express business.

Q. What do you think about the correctness of that?

A. I presume it is just as good as any other way. I would not pass on it. Those are the views of the railroad men themselves as to the proper division of these expenses along with other expenses.

Q. You have the car mile division and the revenue division:

which do you think is the better basis of division?

A. Well, as to traffic expense I would not care to say because I

don't know. There is not a great deal of difference, I don't believe, between the two bases.

Q. Mr. Wharton, I observe on the last item which appears on Exhibit O, which is a summary of revenues, etc., you use the term "Percentage of net earnings to valuation" describing the per cents which are on the line opposite those words:

Do you make any distinction between that and the term used by the railroad company "Return upon the assessed value of the property"?

A. I presume they are the same. This is just the assessed value of the property doubled. I presume that is on the same basis.

Q. I want to ask you if by using the term "Percentage of net earnings to valuation" do you mean to imply any different meaning or significance to your figures than that which would be implied in the formula prepared by the railroad company?

A. No, sir, there is no difference.

2650 Herbert C. Whitehead, a witness of lawful age, being duly produced, sworn and examined on behalf of the defendant, testified as follows:

Direct examination.

By Mr. HILL:

Q. Will you please state your name, residence and occupation? A. Herbert C. Whitehead; Public Accountant and Auditor; Chicago.

Q. What experience have you had in railroad work, Mr. Whitehead? Kindly give us a little outline of your experience.

A. I was thirty-five years in the railway service, commencing about the end of 1872 as office boy and junior clerk in the general freight office of the old Kansas Pacific Railway, now part of the Union Pacific Railroad.

I was promoted in due course to corresponding clerk—that was before the days of stenographers and typewriters—and from that I became local cashier and paymaster connected with the auditor's office.

From that I became traveling auditor on that same road and was for one and one-half years traveling auditor and tax agent.

Then for a short time I was accountant and paymaster of the Mackinaw extension of the Michigan Central Railway; that was for less than six months.

2651 From there I went to the Atchison, Topeka & Santa Fe as traveling auditor, for about one and one-half years and was appointed auditor for the southern Kansas portion of the Santa Fe, at Lawrence, Kansas, and stayed there for six years.

From there I went to Los Angeles, California, as auditor of the Southern California Railway and was there for eight years.

Then I was promoted to be general auditor of the Santa Fe system, with offices in Chicago, and filled that position for nine years.

Q. What years were they?

A. 1896 to 1905. For two years after that I was consulting auditor of the system.

Q. The Santa Fe?

A. Yes, at Chicago. Q. That carried you down to 1907?

A. To the end of 1907.

Q. What have you been engaged in doing during the last two years? ars?

A. Public accountant and auditor.

Q. With offices in Chicago?

A. Yes, sir.

Q. Since you retired from active railroad work, have you kept in touch with railroad affairs and with economic questions that have been presented in railroad accounting?

A. So far as I could under the press of pretty hard work which at times would last months, but I tried to keep myself 2652 as well informed and as alert in that respect as it was possible for me to do.

Q. Have you been connected with the American Association of Railway Accounting Officers?

A. Oh, from the beginning. I was from the time it was organized,

in the '80's.

Q. Have you kept in touch with its work?

A. Up to the time that I retired from the Atchison as the consulting auditor, yes; and to some extent since.

Q. Have you served that Association in any official capacity? A. I was President for one year, while I was general auditor of the Sante Fe.

Q. What is the scope of the work of that Association, Mr. Whitehead?

A. It is an association to enable its members, who are accounting officers—and in some cases their immediate subordinates are also admitted-with the view of bringing about uniformity in methods and improvements in methods.

It is really an effort on their part to keep in touch with the development of accountancy, I should say, as done in their business and in

outside businesses.

Q. I wish you would define what you mean by "accountancy."

2653 A. Some years ago the question was up with the dean of one of the schools of commerce, accounts and administration, at one of the universities in the west, and he was getting a great many definitions at the time from various people, railway people and accountants.

I happened to be down there at the time visiting my boy who was attending that university, and he asked me for a definition. couldn't give it to him offhand, so I promised it to him. I made it in the rough, going up on the train that evening and furnished it afterwards. If you care to have it I can give it to you right now. It may require a little slight explanation and amplification.

"Accountancy is the accurate, truthful and scientific expression, in current and generally understood form of terminology, for the purposes of information, regulation and protection against loss; and the critical review and verification of such expression".

Q. Is that accountancy, as you have defined it, what you referred

to in speaking of "railroad accounting"?

A. Yes, sir, but the railroad accounting is just one branch of accounting. The same principles which underlie all accountancy would underlie railway accounting. The practice might differ quite a good deal from the practice of merchandise concerns, manufacturing and others, due to what you might call the abstract character of the railway business. They don't have anything tangible.

You can't buy anything and sell it again. There is that 2654 abstract feature that attaches to railway business, or any public service, that makes it quite different from a commercial con-

cern.

Q. Different in detail, rather than in practice, is it not?

A. Different in arrangement and detail, both.

Q. Have you in your work given thought and investigation to questions of dividing railroad expenses between various accounts and departments of railroad work, between state and interstate trans-

actions?

A. Through the whole course of my career as an accounting officer, I had a great deal to do with the preparation of statistics of division of earnings and expenses between main and branch lines, as you might say, of the properties, but not between state and inter-The thing was not required in my day at all. I don't remember ever to have had a demand or request of that sort when I was in the accounting offices of railways.

Q. That seems to have come up as a litigious question, rather than

a practical one?

A. What sort?

Q. Litigious, a question of litigation?

A. Oh, yes. I should say that the division of revenue and expenses between state and interstate, was a matter that was political and external, as compared with the division of earnings and expenses between the main and branch lines of a system. The latter would be economic and internal, whereas the

former would be political and external.

Q. How would you classify a division between freight and passenger?

A. That is internal; economic and internal.

Q. In this case the plaintiff railroad companies have sought a separation of state and interstate business, and have separated the revenue derived from those two classes of traffic, and then seek to separate the expense of the two classes of traffic, and apportion the revenue that one class bears to the other:

I will ask you your opinion of that method of ascertaining the re-

lative cost of state and interstate business.

A. In my judgment, to determine cost on the basis of gross earnings is not a very sound determination. That basis is not sound. whether you attempt to divide the expenses as a whole or a portion of them on that basis.

My principal reasons for my view are, that in the case of a trader in merchandise, he would—if he followed that line of argument or reasoning—determine his cost on the basis of his sales of his product; and it further implies the assumption that the end and aim of the railroad enterprise is gross earnings and not net earnings, as I look at it.

Q. Suppose the facts are as developed here: that the gross earnings that are used to determine the expenses are derived from two separate and distinct systems of making the rates which produce those revenues—one a Commission tariff, arranged by state authority, based on distances the freight is carried, and the passenger based on the distance the passenger is carried; and the other the Interstate rates, based on many conditions, commercial, competitive and otherwise:

What further effect would such system as that have upon the revenue as factors in determining the cost of doing the business?

A. Why, it seems to me that that would be a matter of very minute inquiry, before anybody could give an opinion. Any competent accounting officer before he gave an opinion as to what the effect would be—it would be a matter for minute inquiry as to what the effect would be.

Do you really mean to ask what the effect would be or whether the method would be changed?

Q. Really my question goes to both propositions: what effect would it have upon this method of dividing this dual system of

making rates as based upon different considerations?

A. Speaking from the point of view of having in mind the principles and practice of accountancy, I should not say that it would make any change whatever in the method that would be chosen to

2657 arrive at the cost; if there were sound bases for arriving at those costs, that the fact that a certain tariff was in effect or another tariff was in effect, different from it, would not make any difference at all in the method of division, or the method of the determination of the cost.

Q. It would not be the tariff: it would go back to the measure,

whether that was a proper measure of costs?

A. No, sir; I should say not. That is determined by other things than what particular tariff might be in effect, either freight or passenger.

Q. And either state or interstate?

A. Either state or interstate.

Q. Mr. Whitehead, have you examined the exhibits that have been filed in this case by the State, that have been put in evidence by Mr. Wharton?

A. Yes, sir, I examined them and went over them with him.
Q. Take for instance the exhibits that deal with freight traffic.

A. Which road?

Q. You might take the Iron Mountain. The principles are the same.

You will see from those exhibits, as you doubtless know, that there is an attempt made there to ascertain the cost of state and interstate

business, by ascertaining the cost of local and through trains. and then ascertaining the volume of state and interstate traffic 2658 that is carried upon those trains, and in that way ascertaining

the cost of the state and the interstate:

I will ask you to give your opinion of that method of apportioning those expenses.

A. You are asking me for an opinion in detail or in a general

wav?

Q. In a general way.

A. Why, it seems to me to be very fairly worked out and quite

approximately correct.

Q. Are the bases that are used there for the various divisions, such bases as are used by railroads in their own apportioning, and are well known and recognized factors for determining these divi-

A. To my certain knowledge, they are the ones that have been worked out experimentally by the railroads, in the last forty or fifty years, which they have come to as the business increased and as the density of traffic became greater.

Cross-examination.

By Mr. Moore:

Q. I believe you said, Mr. Whitehead, that you have never undertaken or had any experience in dividing between state and interstate business, as between the main line and branch lines: that your work has been done in the matter of dividing revenue expenses: have I understood you correctly?

A. That was quite correct, ves, sir. Your understanding

2659 was correct.

Q. Have you had occasion to make a division of revenue

and expenses between local and through trains?

A. At times, as auditor I would be called upon to make statements of train earnings and expenses for the Manager of the road of which I was auditor. I can't recall those things just now. They are constantly coming up; they are asking for statements of station business; for the earnings and expenses of particular trains. In all railroads I think the auditor is called upon for that sort of work, to a greater or less extent, according to the volume and character of the business

Q. Let me see if I understand: what would be the extent of a case like that, if you have any case in mind? What would be the nature

of the inquiry you would make?

A. The inquiry would come from the general manager or general superintendent, to the auditor. He would be asked to prepare statements showing the earnings and expenses of certain trains, or give the business of certain stations and what their expenses were.

Q. What would be the purpose of that, Mr. Whitehead?

A. To inform the operating official so that he might learn whether those trains were paying or not, and predicate his judgment as to continuing them; increasing the service or changing it in some respect; purely a matter of internal workings.

W. E. Fitz Gerald, of lawful age, being first duly sworn and examined, deposed as follows:

Direct examination.

By Mr. HILL:

Q. I wish you would please state your name, age, residence and occupation?

A. W. E. Fitz Gerald; 39; Residence, Austin, Texas; Auditor and expert Accountant, Railroad Commission of the State of Texas.

Q. How long have you occupied your present position?

A. Since June 1st, 1909.

Q. Prior to this work that you are now engaged upon, in what were you engaged?

A. I was in the railroad service, with the H. & T. C. R. R. Q. How long have you been engaged in railroad service?

A. 24 years.

Q. I wish you would give a brief history of your railroad service, mentioning the earliest, and follow it through to your present position?

A. In June, 1885, I entered the railroad service in the accounting department of the G. H. & S. A. R. R., at Houston, Texas, as an office boy, and my service has been in that department continually ever since, occupying positions, as voucher clerk, general book-keeper, and chief clerk, in charge of general and disbursement accounts.

Q. With what railroads have you been connected?

2661 A. With the Southern Pacific interests, from June, 1885 to I think about 1890, and from 1890 to 1894, with the San Antonio & Aransas Pass Railroad at San Antonio, and from that date, I was with the H. & T. C. Railroad, and I then afterwards worked again with the Southern Pacific interests, and returned again to the H. & T. C. Co., my last service being with that Company.

Q. I believe you stated all your service has been with the Account-

ing Department, of these railroads in different capacities?

A. Yes, sir.

Q. Has your work in the railroad service, and with the Texas Railroad Commission made you familiar with railroad accounts, and have you made a study of that subject?

A. Yes, sir.

Q. What is the scope of your work with the Railroad Commission?

A. The principal work is in the nature of compiling statistics, and examining the records, verifying any data that the different railroads might be called upon to furnish for our use.

Q. Are you dealing with railroad accounts in this position?

A. Entirely.

Q. Have you made any study and investigation of the question

of dividing expense accounts in various departments of the railroad,

work, between state and interstate traffic?

A. As between state and interstate traffic, not to any great extent. The question has never come up very much; in fact, I never knew it to come up before while I was connected with the railroad service, The only division being required as to traffic being between freight and passenger service.

Q. Have you, since you have been with the Commission, had occasion to examine the questions of state and interstate

relations and the separation of their work?

A. Not to any great extent.

Q. Are you familiar with the various bases of divisions of railroad expenses, ton mile, car mile, train mile, etc.?

A. Yes, sir.

Q. In this case, the plaintiff railroad companies have sought separation of their state and interstate business, and have obtained the revenue from each of those classes of business separate, and have the gross expenses of the State of Arkansas ascertained for a given period, and are seeking to divide those expenses between state and interstate traffic, in proportion that the revenue state and interstate, bears, what is known as the revenue theory of dividing expenses. Are you familiar with that theory of division of expenses?

A. I have given it some consideration.

Q. I wish you would state your opinion of that method of ascer-

taining the expenses of state and interstate traffic?

A. I would say the revenue theory appears to me to be exceedingly erroneous, in view of the fact that the operating expenses of a railroad bear little relation to its income or revenue derived from traffic. For these reasons, 1st, the preponderance of expenditures being apportioned as a whole, giving on a basis irrespective of revenue coming in, making the expenses largely independent of the amount of traffic, the constant expenses being considered as an average, we will say,

about 60%. Second, it is a well known fact that the actual 2663 cost of service is more often disregarded in arriving at rates,

the same being based frequently on other conditions, such as competition or commercial conditions, industrial developments, etc., without any consideration to the distance of the haul. In my opinion, the revenue theory would not be a fair basis under these conditions.

Q. In addition to the reasons that you have given, I will ask you what relation if any, exists between the rates or revenue, state and interstate, that would make the revenue derived from each of those

sources a proper measure of the cost of the service?

A. I don't see where the revenue would make it a proper basis for the very reasons enumerated, that these considerations are not given in making the rates.

Q. Have you examined the exhibits in this case, that have been

filed by the state with Mr. Wharton's deposition?

A. Yes, sir.

Q. I wish you would express your opinion as to those exhibits,

as to whether or not they show a proper division of the expenses be-

tween state and interstate business? A. The basis prescribed, as a whole, seems to be, in my opinion, those which will bring about an exceedingly close approximation of the actual conditions. The use of a train, engine, car and ton mileage, as adopted for the respective accounts, appear applicable in a great many instances. The use of one in favor of the other is a matter of opinion, even though the results obtained might be,

and are, very often practically the same. The obtaining of 2664 actual costs of local and through train and engine service,

and then applying the ton mileage, is in itself, bound to bring about very nearly the exact conditions as to the expenses applicable to each class of traffic. The arbitraries assumed appear on their face, to be very conservative. An experience- operating official could, however, more definitely analize and explain the occasion for some of them than I could, owing to the limited investigation or consideration that has been afforded in the examination of this exhibit.

Q. By those arbitraries, you are referring to this 50% engine mileage, and these other matters that have been referred to?

A. Yes, sir.

Q. Now, take up some of this detail. Have you got a copy of this exhibit before you?

A. Yes, sir.
Q. Turn to "K" please, maintenance of way and structures, the proportion of these expenses applicable to freight business as shown by statements in this case, submitted by the Companies, has been divided between local and through train service on the basis of the total engine and car miles of each class during the month of October, 1907, that month being considered representative of the business for the six months ending December 31, 1907. In arriving at the number of engine and car miles we have added 50% to the engine mileage of local trains for station switching, and I assume that each engine mile was equivalent to 21/2 car miles. You see the basis of that is

the car mile of each class, with these additional allowances for engine miles of local trains, and for weight of locomotives. I will ask you your opinion of that method of dividing the

maintenance of way and structures?

A. I would say that the total engine car mileage, is, in my opinion, practically the closest approximation that can be arrived at. It is practically equivalent to the gross ton miles which is frequently used.

Q. Is this the accepted basis for dividing expenses of car mileage? A. Yes, sir, it has been in my experience; the engine mileage is

especially applicable to maintenance of way expenses.

Q. Attention has been called to the fact that the proportion—probably a large proportion of the maintenance of way and structures expense is due to other causes than the running of trains, wind and water and things of that kind. I would ask you what effect, if any, that should have upon the division of this kind of car mileage basis?

A. I should say that the accounts or other parts of the service that are affected by other elements would, in nearly every instance, or in a great many instances, be placed there, you might say, for the benefit

of the train service indirect, and should therefore fall thereon. Q. Your idea is, I gather, that it is for the use of the trains?

A. Yes, sir, in other words, in my experience, I have never had it brought out that there should be any difference between-any great difference between those two elements; that it is accepted as a general proposition that the entire maintenance of way expense

should be practically considered the same. In practice of

2666 railroads I have been with, they follow that theory.

Q. You would think then, there should be no difference made between expense that is caused by the wear of the train, and that caused by the operation of the locomotives?

A. Not a great deal, no.

Q. We have to take the use to which that track is put, in order to find out the expense that will appertain to each class of service on it.

A. Yes, sir. Q. Take this next account of maintenance of equipment, what do you think of the locomotive mileage and car mileage basis used in the ascertainment of the expense under that head, between local and through trains?

A. I would say the engine mileage and the car mileage is the basis that is generally used by all railroad companies, in arriving at their cost of performance of locomotives, and train and car service, and it seems that those bases are really what bring about, in the greatest measure, the necessity for repairs to the locomotives and cars.

Q. I call your attention to the division of expense under that head, freight cars; the accountants have recognized the additional item charged to the repair of freight cars, that has been reached by Mr. Wellington in his work on "Railway Location." I will ask you

if you are familiar with that work and know whether or not it is a standard work, and accepted among railroads? 2667

A. I understand that it is generally recognized as a very

good work. Q. Have you any knowledge upon which to base an opinion of your own, aside from Mr. Wellington's work, on that subject, as to what would be the proper percentage to allow for these items that are

referred to under that head?

A. No, I hardly think I would be qualified to pass an opinion as to the division that might be made on this account, it being more largely of the departments of physical operations, I should say. However, I would imagine that would be a very conservative addition to it, and would cover the results that you seek to obtain.

Q. The next item under that is supervision in general, paragraph I call your attention to the method of dividing that expense into local and through service on the basis of direct charges for maintenance of equipment, and I would ask your opinion as a railroad accountant on that method of dividing supervision and general

expense—"C", page 3.

A. I would say that the plan followed here seems to me to be the most equitable that could be obtained; it follows the theory of what is termed general shop expense; general shop expenses are distributed in a way over the accounts that are affected, and this supervision in general is practically, as I would take it, on that same theory.

2668 Q. Is that considered a sound theory in accounting practice?

A. It is so considered, and has been adopted by the Interstate Commerce Commission.

Q. Is it in force in business affairs as well?

A. I have never had any experience in business affairs, but from conversation with accountants in commercial enterprises, I should judge they follow that rule to a greater extent than the railroad

companies do.

Q. That same method is followed throughout these exhibits, for all supervision in general, and for general expense, and your answer in regard to this particular exhibit, head, is applicable to all that particular class of expenses?

A. Yes, sir, I think so.

Q. Don't the railroads, when they do work for another railroad add a certain percentage, say 10%, for supervision and general expense?

A. Yes, sir.
Q. That is common practice?
A. Yes, sir.

Q. And they charge it in proportion that the direct costs are apportioned?

A. Yes, sir.
Q. The next I find is traffic expenses; these are divided on the straight revenue basis; although accountants state in their opinion, that this unduly burdens the intrastate business, owing to the fact that a considerable portion of the traffic expense is incurred in an effort to secure competitive business, while it is well known

that intrastate business is largely non-competitive; this was used by the railroads in their evidence and it has been used I will ask your opinion upon that as a division for

dividing traffic expenses?

A. The division of these expenses as a whole, upon the revenue basis, on the ground that no other basis is as near applicable, results in unduly burdening the state traffic with expense, while known from their nature to be directly chargeable against interstate service. Therefore, it will appear, we should first locate those heavy expenses directly incurred for interstate service, and such as foreign agencies, traffic associations, industry and emigrant bureaus, etc., and then proportion the balance on the basis of local and through revenue, train mileage, as being the nearest unit reflecting the results obtained by the energy applied.

Q. Do the railroads, at the present time, keep their books in such shape that a division could be made along the lines that you have

suggested?

A. Yes, the classification of operating expenses brings out largely these foreign agencies that I speak of, that in my opinion should be considered entirely for the benefit of interstate service. I have heard of instances where they claimed a foreign agency, an outside agency we will call it, has, to some extent, pertained to state or local traffic, but I think such instances are something like Halley's

comet, they are few and fair between, even more so than that comet, and I think for that reason all the railroads could very

comet, and I think for that reason all the railroads could very easily, for approximation, consider these outside agencies located off the line where the expenses are very great too, consider them as being applicable to interstate service, that it would be sound accounting.

Q. Your objection to this division is that it charges too much

to the state traffic?

A. Too much to the state traffic, when it is a well known fact, I believe almost any accounting official would say, that the ma-

jority of the traffic expenses are for the interstate business.

Q. Almost any basis you would take, short of the separation of accounts, as you have indicated should be done, would be subject more or less to the same objection that the revenue objection would be there, wouldn't it?

A. Yes, after locating these heavy charges, the balance that would remain, would, in my opinion, be so small that almost any basis you would apply would not affect results to any great extent,—

that is, the results of the total operating expenses.

Q. Turn to the next head there, transportation expenses, I call your attention to the fact that they have made an allowance there, under the heading of station expenses, a double number of intrastate tons, in order to provide for two handlings of intrastate traffic, and one handling of interstate traffic. I will ask you to express your opinion on that division? That is "A" under 4.

A. I should say that it is certainly a very conservative esti-2671 mate, and if anything, it takes care of the extra expense that might be applicable to station service on that account.

Q. In that connection, I want to call your attention,—from the evidence in these cases, introduced on behalf of plaintiff railroad companies, that is, that cotton, which has a large movement in Arkansas, and is all interstate traffic, has three handlings, usually taken up on the way train to compress points, and there compressed, and re-loaded after compression, and shipped to interstate points, and also that grain, which has a large movement in the state, is shipped into the state principally on milling and transit rates, and shipped out of trade centers, most generally on way trains to point of destination, and is usually an interstate shipment, and would have three handlings; should those matters and others of like nature be considered in determining the amount of station handlings?

A. Yes, sir, I should think it would be necessary to consider them very largely; taking those facts in consideration, it would necessarily follow that this condition should be reversed, wouldn't it? That these extra handlings should be charged in that instance to inter-

state instead of intrastate traffic.

Q. On the other hand, there is evidence here that there is a large trans-state movement, which would not receive so much handling;

it is a class of interstate traffic. I believe about 51% of the 2672 Iron Mountain traffic is trans-state. Would that receive less handling than other interstate traffic?

A. It would to a certain extent, especially so far as way service is

concerned.

Q. There is another piece of evidence in the case in that connection, that I call your attention to also, and that is traffic in and out of Memphis and Fort Smith is interstate traffic and has two handlings within the State, owing to the geographical locations of those two cities; I will ask you if that is a factor also to be considered in determining the amount of station handlings?

A. Yes, sir; I should think so.

Q. The next item to which I call your attention here, is hard and terminal expense. These are divided in local and through business, on the basis of the number of cars handled at terminals, as explained under the head of maintenance of yard locomotives. What is your opinion of that method of dividing yard and terminal

expenses? That is paragraph "B", on page 4.

Q. The basis of handling terminal expenses,—dividing, I should say terminal expenses on the number of cars handled, appears to me to be the most applicable that can be found. In my experience of handling different terminal accounts, I found that in a good many instances, other bases had been obtained or arrived at, you might say, with different companies, more for the reason that probably one company had certain advantages; that is, they might want to

2673 sell, but generally they were all equally interested; it is a practice to divide the expense on the basis of cars handled.

Q. You refer to joint terminals when you refer to the advantage of one road over another?

A. Yes, sir, joint terminals owned by one road.

Q. One making a profit off its terminals?

A. Yes, sir. In those instances, car mileage per car handled would probably be cast aside for any arbitrary basis that they might desire to put in.

Q. But where you were going to divide two classes of traffic of

the road itself, what do you think of this method?

A. I think that it is equally applicable as it would be in using that basis for division, where the roads have the same ownership in the terminal, where they seek to obtain the actual cost and that is the object. In other words, where the ownership is equal, there is an endeavor there, by using the number of cars handled, to obtain, as near as possible, the actual cost to each, and if it is used for that purpose, it certainly can be applied as between two classes of traffic.

Q. The next heading to which I call your attention, is engine house expenses "D" on page 5; these are divided between local and through service on the basis of engine miles of each class of service during the month of October, 1907, assuming however that the local engines required 12% more engine house service than other

engines and this basis is based on the average engine run in the two classes of service. I will ask your judgment of the fairness of that division? A. That seems to be about the most applicable that can be

reached.

Q. Now "F," other train expenses, divided between local and through, in proportion to the train miles of each class of service; what do you say about that?

A. I would say that is about the nearest applicable unit in that

respect.

Q. Turn to page 7, the method of dividing train cost, the total ton miles, of interstate and intrastate freight handled during the period,-divided between local and through service, and the train cost is divided between intrastate and interstate in proportion to the volume of traffic of each account handled in each class of service. I will ask you your opinion of that method of arriving at the proportion assignable to state and interstate business.

A. After obtaining the total cost of freight service, I should say that the ton mileage would be the nearest unit applicable. The difference in the cost of service of the different classes of freight,

as a whole, would be comparatively small.

Q. You mean by classes, state and interstate?

A. Yes, sir, and the next thing to obtain would be the nearest unit, caused by any fluctuation in those expenses.

Q. I gather from your answer, that your idea is that the two

classes, state and interstate, move together?

A. Yes, and the other expense is practically the same. The only exception being the yard and terminal expenses, that are a very small proportion of the whole, so that when we take the total operating expense and arrive at the cost per ton per mile of handling, why there would be a very slight difference in the cost of through service.

Q. Those differences in cost have been taken care of before they

reached that point?

A. Yes, sir.

Q. I infer from your statement, that you recognize the difference in the cost of handling intrastate freight business being more expense, and I will ask you if in your opinion, all those elements of extra cost have been properly taken care of and allowed in this method of dividing expenses.

A. Yes, I think they should be more than taken care of. Q. In other words, you think the allowance has been too much for the interstate?

A. Yes, sir.

Q. Take up the passenger business, without going into the detail of it, you are familiar with this method of division here, I believe, about the only difference is they don't carry any division between 'local and through trains, but it is carried more on difference in equipment; the division is made on that between engines, coaches, mail and express, Pullmans and so forth; I ask your opinion of that method of arriving at a division of expense?

A. I should judge that that is an element that certainly should have been considered, and giving it the consideration

you have, it takes care of the differences that might arise

in handling of that service.

Cross-examination.

By Mr. MOORE:

Q. What did I understand you to state your relations with the Texas Railroad Commission to be?

A. Auditor and expert accountant.

Q. And what is the character of work done by you in that

capacity?

A. Principally the compilation of statistics from returns made by the railroad companies, and investigations or verifications of any data that they might furnished when called upon in connection with any case we might have before us for hearing.

Q. How many railroads have you in Texas, in a general way of

course, I mean?

A. Our last report showed that there were 86, my recollection is, 86 railroads recognized as common carriers.

Q. Do you remember about what their total mileage is? A. No, I don't recall it; I have the report, I can get it.

Q. There is no use of that, the number of railroads and mileage operated in your state, keeps you pretty busy in your making compilations, does it not?

A. I can give you an idea as to the mileage; there is some-2677 thing like thirteen or fourteen thousand miles of straight

main line mileage.

Q. The extent of railroad business in your state, keeps you pretty busy, doesn't it, making compilations from reports and so on, that you mentioned?

A. Yes, sir.

Q. Where do you do your work?

A. At Austin.

Q. At the office of the Commission?

A. Yes, sir, office of the Railroad Commission in the State

capitol.

Q. Your work consists in working up and making compilations of the statistical information that comes in their reports of these various railroads?

A. Yes, sir.

Q. I believe you began your career, you say—you might say your industrial career—in 1885, in connection with a railroad in Texas?

A. Yes, sir.

Q. What was the capacity you worked in then?A. At the bottom of the ladder as office boy.Q. You began with the Southern Pacific?

A. Yes, sir.

Q. How long were you with them?

A. I might say that these roads I have enumerated here are practically all Southern Pacific interests; they all adopted the same plans and principles in accounting. I have practically been with that system all the time.

Q. How long did you remain in the capacity of office boy then?

A. I think four or five months.

Q. Then what were you promoted to?

A. I took a minor position as clerk.

Q. In other words, what I want you to state is the various duties performed by you in this work, and the character of experience you obtained in this service; take them up one at a time. Your first employment was with the Southern Pacific in 1885; how long did you remain in that employment.

A. From 1885 up to 1890, that would be five years.

Q. What were your duties during that period of five years, that is what I want you to describe.

A. I was voucher clerk, and assisted the general book-keeper.

Q. How long were you voucher clerk?

A. My recollection is, probably about two years of the time.

Q. What were your duties as voucher clerk?

A. Recording of vouchers, and making distributions of them.

Q. What were your duties as assistant book-keeper?

A. Handling what is termed in railroad offices the sub-ledgers, pertaining to accounts with individuals and companies and other roads, covering their traffic settlements.

Q. That brought you down to 1890?

A. Yes, sir.

2679 Q. Then you went with the San Antonio & Aransas Pass Road?

A. Yes, sir.

Q. How long were you with that road?

A. Four years.

Q. What were your duties on that road?

A. General book-keeper the entire time that I was there.
Q. I suppose the duties of book-keeper of a railroad are somewhat similar to those of any other commercial enterprise, are they not?

A. Yes, sir.

Q. And you left that, you went to the Houston, Texas & Central Railroad, did you?

A. Yes, sir.

Q. How long were you there?

A. I was with them a few years, and then went with the Southern Pacific; I was in charge of the general and disbursement accounts,—chief clerk in the office.

Q. In charge of general and disbursement accounts, what were

your duties in connection with your office?

A. My duties in that respect were of a supervisory nature, over the entire department; that is over the general books that I have enumerated previously, and the disbursement department, embracing the handling of vouchers and pay-rolls, and statistical data compiled from records showing the operating expenses and earnings.

Q. Did you have any duties to perform in the way of dividing

operating expenses as between the different branches of the service?

2680 A. Not at that time.

Q. Your duties were to keep records of what came in?

A. The actual facts.

Q. When did you go from the Houston, Texas & Central, from that employment to the Southern Pacific?

A. I think in about 1901, that I went with the Southern Pacific

at Houston.

Q. How long were you with that Company?

A. About two years.

Q. What were your duties there?

A. In compiling statistics principally; that is where I had the experience of making the division of earnings and operating expenses, as between the freight and passenger service; that is where I had the actual experience of working at that.

Q. What do you mean by actual experience in dividing earnings

between passenger and freight; did you say the earnings?

A. I mean the actual experience in doing the work, calculations. Q. In other words, your experience was in clerical work?
A. Yes, sir.
Q. You had nothing to do beyond working up the figures?

A. No, sir, I will say, however, that doing that clerical work, that in schedules that were prepared for the different bases in a good many instances, the reasons given were assigned, so as to make any one thoroughly familiar with the reason why the work was performed in that way.

2681 Q. Did you acquire a general knowledge as to the methods of dividing between the freight and passenger branches of the

service?

A. Did I acquire any knowledge?

Q. A general knowledge of the methods adopted by the railroads throughout the country?

A. Yes, I would say I had a general knowledge.

Q. When and how did you acquire that?

A. At this time.

Q. What is the system or the method used on the Missouri Pacific

system of railroads?

A. My recollection is that they use the revenue train mileage basis; of that, I am not however, sure. In some instances, the engine miles; in some instance the car miles.

Q. What is it they divide on that basis?

A. You asked me if they divided the freight and passenger; that was your question as I understood it.

Q. What are you referring to now, revenue or expenses?

A. I understood you to say the expenses.

Q. How do they assign the revenues between those two branches of the service?

A. Between freight and passenger?

Q. The passenger?
A. The revenue very largely shows for itself.

Q. Does it altogether?

A. Not entirely.

Q. What proportion of the revenue is it that is not self-divisable?

A. That would be a very small proportion, I think. 2682

Q. What part, please, of the service?

A. I would take it, the principal part would be the miscellaneous revenue.

Q. What is miscellaneous revenue?

A. Revenues that are obtained, we will say, from rents of buildings, and earnings from the sale of privileges at stations, and things of that character.

Q. How is that divided between freight and passenger service?

A. I don't recall right now what rule is followed generally. Most roads have different usages, and a good many of them don't attempt any division in miscellaneous.

Q. It must be done in some way; it must be charged somewhere, to some account, in order to keep up the method of bookkeep-

ing, wouldn't it?

A. My recollection is some of the roads use the revenue basis on that; the proportion between freight and passenger revenue.

Q. Divide it on the earnings basis?

A. Yes, sir. Q. Isn't that the pretty general rule in the absence of some other-

A. Yes. I believe it is.

Q. Now, that is a pretty considerable item too, on some large roads?

A. Yes, it is quite an item.

Q. Is there any better method that you can think of for dividing that, than that manner; understand, it is incapable of division except in some arbitrary manner, do you know of any 2683 better method than that?

A. No, as far as earnings is concerned, I believe the dividing of earnings on earnings is about as close an approximation as you can get.

Q. We are speaking now of expenses; is it indivisible in any other

way?

A. Yes, in a general way between freight and passenger. Q. When you went back to the Houston & Texas Central from the Southern Pacific service, what time was that?

A. In May 1903.

Q. What duties did you discharge with that road, from that time on?

A. As chief clerk in general and disbursement accounts, practically in the same position that I had held previously.

Q. You were brought very little in contact with divisions, I sup-

pose?

A. Yes, except at this later date, the company had gone into then, the more extensive manner of working up statistics, showing these divisions between freight and passenger, as we had not done when I was first connected in that capacity.

Q. Were your duties with regard to them, were they the same as they had been before, in recording and entering and of a clerical nature?

A. Yes, sir, except that they were more extensive than before we

had established these statistical bureaus.

2684 Q. There was some more minute divisions, I suppose you mean, the division extended perhaps in more directions?

A. Yes, that is what I mean.

Q. The duties were multiplied in that way?

A. Multiplied by having compiled statistics of this character that

we had never had before.

- Q. Your duties were of the same nature, carrying out in a clerical way, the rules, whatever they were, that you found established there?
- A. The rules we found established there, and the rules that we made from our own notions, based on the conditions as we saw them.

Q. What were your methods in freight and passenger divisions

I would like to have you state it in a general way?

A. The method was the engine mileage, and train mileage and car mileage.

Q. What did you divide on the basis of engine mileage?

- A. Principally the maintenance of way expense, and then under maintenance of equipment, locomotive expenses.
 - Q. And on the car mileage, what did you divide on car mileage?

 A. The principal expense there represented is the repairs of cars.
- Q. What were the other units you mentioned, that is the engine and car,-what was the other?

A. Train mileage. Q. Revenue train?

A. Yes, sir.

2685 Q. And what was divided on that basis?

A. The revenue train mileage was applicable mostly to transportation expenses and general expenses.

Q. What is the length of that road, the Houston, Texas & Central?

A. 791 miles, is my recollection.

Q. What is its termini.
A. Houston to Dennison, that is considered the main line.

Q. What are the different kinds of expenses embraced in maintenance of way and structure accounts?

A. Mostly repairs of roadbed, and track, as bridges and buildings.

fences, road crossings.

Q. What is it that produces the necessity for a large amount of repairs, of that kind, is it produced by wear and tear of passing of trains or from other causes?

A. I should say, an operating official would be better able to answer that than I could; I would imagine that wear and tear

would be the principals.

Q. You would imagine wear and tear would be the principal causes of the necessity of repairs?

A. Yes, sir.

Q. You don't profess to be an expert on that subject?

A. No, sir, I would just answer that generally.

Q. Is it on that idea that you think that the expense should be divided on the basis of the total engine and car miles?

A. Yes, sir.

Q. That is the reason why you think so. I want you to tell me your reason for thinking that any per cent at all should be added to the engine mileage of local trains, and for what Why do you think that is purpose it should be added?

proper?

A. I testified in respect to that, that I did not feel qualified to be able to state any reason for such addition, that in a general way, that would be considered right.

Q. You would have no independent opinion based on your own

experience of that?

A. No, sir.

Q. You never operated a locomotive, did you? A. No, sir.

Q. All your knowledge of locomotive operation is from keeping books in the office, I suppose?

A. Yes, sir.

Q. Do you feel qualified from any experience you have ever had, in connection with railroads, to form an independent opinion of your own, as to what would be a proper basis of dividing the expenses incident to locomotives, locomotive repairs?

A. Well, it would only be based on the practices that I have

seen followed.

Q. That is what I mean?
A. Those practices that have been followed—reached after con-

sultation with officials of the operating department.

Q. And whatever opinion you have of it is based upon your belief in the competency of others who were more familiar with the subject, to adopt proper methods? That is a fact?

A. Yes, sir, and the practices I have seen. 2687

Q. And it is not based on your judgment, derived from your own experience?

A. I have had no experience in that line, to arrive at any judg-

ment.

Q. You wouldn't have an independent judgment of it, outside of the practices upon which you say you based your opinion, would you?

A. No, sir.

Q. Now, for instance, in making up the statement I had before me, to which your attention has been called, 50% has been added to the mileage made by yard locomotives, to provide for possible extra maintenance due to yard service, and then 50% more has been added to the mileage of road locomotives in local service to provide for possible extra switching mileage, and then again, 50% has been added to that switching mileage, to provide for possible extra maintenance due to switching service, being in the main 75% additional. If you were called upon to make a division of that, and to make provision for any extra service based on any knowledge that you have as to the incidents of the service, you couldn't do it, could you?

A. I could probably do it if I had opportunity to give it sufficient time and study to look into different conditions,

Q. You haven't had that up to this time?

A. No, sir, not in this case.

Q. And for that reason, you wouldn't feel qualified to say whether that basis is correct or not, without having an opportunity 2688 to give it more investigation and study than you have up to this time?

A. Yes, sir.

Q. You say you would or would not?

A. I would not want to qualify.

Q. Have you made any study of Mr. Wellington's book of "Railway Location"?

A. No, sir, I have not made any particular study of it.

Q. Have you read the book through? A. I have read the book, part of it.

Q. How long ago was that book prepared?

A. The edition that I saw was first prepared way back, I think in 1881 something like that; it has been brought down to more

recent date though.

Q. You spoke about new methods that were adopted by the Houston & Texas Central Railway when you went back there the second time; they involved a good many changes in the method of dividing and proportioning these expenses, didn't they?

A. I won't say they made any cha-ges, because they have never

had any system of division before that time, at all.

Q. When was that, the period you speak of, when you went back there?

A. 1903.

Q. At the time Mr. Wellington wrote his book along about 1880 or 1881, somewhere along there, there wasn't really any general method adopted and there was very little experience in determining, among railroad officials, in making divisions of that sort.

A. This did not have reference—at least, Mr. Wellington's 9 book has no reference to divisions between classes of service.

Q. I understand that this quotation from it does not, but what I want to know is whether these divisions were recognized and adopted, whether railroad officials had experience in making them, at the time that book was first prepared by Mr. Wellington, without regard to whether he treated of the subject or not. I want to get information as to whether that method was in effect at the time he wrote that book?

A. I should say, from what I have read that at that time, prob-

ably there was methods observed of division.

Q. I misunderstood you then, I thought you said there was no method.

Q. You asked me directly in respect to the line I was with—at least, I understood it that way.

A. Have you any idea from your reading of Mr. Wellington,

upon what he based this statement of 21.5% of the repair expenses of freight should be allowed, and that on account of starting and stopping at way stations, 13.5%, on account of terminal handling.

A. No, I didn't give that any particular study.

Q. You don't really know what ground he bases that on, do you? A. No, sir.

2690

Q. What do you understand, from your own knowledge and information, to be the difference in the amount and extent of terminal handlings, that is, between through and local trains, and traffic that is carried on through and local trains?

A. The difference in the terminal handlings?

A. Well, I don't feel able to qualify to be able to enumerate any differences that may occur in handling of traffic at a terminal, other than to state my belief in a general way, that is practically more at a terminal for handling local service.

Q. What is that opinion based on?

A. Based a good deal on conditions as I have observed them, I would sav.

Q. What have been your opportunities of observation in that respect?

A. Visiting around at stations, seeing trains made up. Q. Do you mean visiting stations in an official capacity?

A. In both.

Q. What occasions have you had occasion to visit them in that way?

A. I have had occasion to go to stations for the examination of their accounts, and verification of agents' accounts.

Q. What opportunities on such visits did you have to observe the method of handling trains, and any differences that might exist as between the two classes of trains?

A. Only in a general way.

Q. Just as any other passer-by or person who happened to be there might observe it?

A. Yes, sir.

2691 Q. What character and different kind of expense expense of maintenance of way-is included under the item of "supervision and general"? It is near the bottom of the page on exhibit K.

A. Under "maintenance of equipment"?

Tell me the different kinds of expenses included in that. What are the different kinds of expenses embraced under the

sub-head of "supervision and general"?

A. Well, not having compiled this exhibit, I would not be able to state what is included in that item. I would have a general idea, taking the classification of the Interstate Commerce Commission, what it is intended to cover. I can give you that if you want to take the classification.

Q. What is meant by the term "direct" charges for the "main-

tenance of equipment" used in that connection?

A. I would understand that to mean the charges located, direct to any particular account.

Q. I do not know that I understand what you mean by "located to any paeticular account"; make that a little more definite and tell me what you mean by that, please.

A. I would mean by "located to a particular account" for instance, the repairs of freight cars being located directly to the ac-

count covering the class of "freight car."

Q. Speaking of that, can you locate repairs to freight cars as between local and through trains?

A. The only basis that they have followed is by taking

2692 the car mileage of cars in a local train in proportion to the cars in the through train.

Q. What is it that produces the necessity of repairs of freight cars?

A. The particular necessity is the wear and tear occasioned by the distance that these cars travel. That is the greatest element.

Q. One of the elements, then, is the length, you might say, of the journey the cars make?

A. Yes, sir.

Q. Now, I suppose another one is the weight of the car and its contents—the weight of the contents.

A. Yes, that would have an effect.

Q. What would be the difference, or would there be any difference in your judgment, in the wear and tear upon a car hauling sixty

tons of freight and one that is hauling five tons.

A. There is bound to be a difference, but it is unlocatable from the fact that the car may today be in the service of carrying sixty tons, and may be tomorrow it may get a rest and carry five tons. It would be hard to locate any great difference.

Q. If either branch of service is characterized by a heavier loading, that is to say, if the cars in the local trains were twice as heavily

loaded as the cars in the through trains, or vice versa, as a rule; and if the loading of the cars effects to any extent the wear and tear, would you think it proper to make an allowance on that account?

A. Well, an allowance might be considered, but it would be so small that I do not think for the purpose of an approximation it

would be necessary.

Q. You recognize this simply as an effort to approximate: you do not regard it as anything more?

A. An effort to approximate it.

Q. What is included in "station expenses" under the head of "transportation expenses" referred to in this exhibit on page 4?

A. "Station expenses" as this term applies here, would include

the wages of agents and their clerks, warehouse watchmen, laborers,

operators

Q. If a large proportion, say one half of the tonnage of one or both of the railroads which are engaged in this litigation, should be of a character that did not require that service, do you believe that the method of division adopted here would be correct?

A. Under those circumstances this would not apply.

Q. What is "yard and terminal expense" under the general transportation head?

A. That generally includes the expense of the switching engine;

switching crew; fuel and supplies for the engine.

Q. That is divided on the basis of the number of cars 2694 handled?

A. Yes, sir.

Q. Suppose the character of service rendered to the cars engaged in different classes of traffic were materially different, and that difference ran through and characterized the classification as applied to the cars engaged in the traffic; would the number of cars handled properly reflect the difference of the expense?

A. As near as could be obtained.

Q. Possibly as near as could be obtained, but would it correctly reflect the relative expense?

A. It would be such close approximation that there would hardly

be any difference-

Q. Just to illustrate: suppose we take a case of two cars: one of those cars is handled simply by detaching it from one train and attaching it to another; practically one movement.

Another car would require three movements maybe:

Would you say that it would be correct to apportion the expense incident to that part of the service between those two cars on an equal basis? Just simply to say, here are two cars and we will divide it equally between them.

A. Not if those were the actual conditions that existed in con-

nection with each car.

Q. What are the elements that enter into and control the relative consumption of fuel and engine supplies on different roads? 2695 A. I would say that the length of run of the locomotive would be one of the elements. The capacity of the train would no doubt have another large effect on it.

Q. In what way would those considerations affect it?

A. The fact of the train running a greater distance, I think even to the layman's mind, would bring about the additional consumption of fuel.

Q. Those things, I suppose, differ on different lines of road, too,

do they not?

A. Oh, yes.

Q. What is your observation or do you know about the fact of their being a difference in the character of service in the respect mentioned by you on different lines of railroad.

A. I do not feel qualified to make any statement in respect to

that, hardly.

Q. Would you feel that you could ascertain and determine the relative consumption on one line of road by ascertaining what the relative consumption had been on another line of railroad at a different time, for a different period?

A. I do not know that I could. I think an operating official

could.

Q. Do you believe that would be a fair basis of determining the question as to the road upon which the-

2696 A. If any one making the assertion that the conditions are the same would be thoroughly familiar with the conditions in each instance, I would imagine that would be satisfactory.

Q. It depends on conditions of that sort, I suppose?

A. Naturally.

Q. Do those things vary at different periods on the same line of railroads?

A. I should judge they would.

Q. You would have to assume, in order to take on the same road the consumption at a given period—you would want to test it by the same period, at least by a period when the character of traffic with reference to the volume that entered into it was similar, would you not?

A. Yes, to obtain results, I would,

Q. It would be still more important, would it not, in testing one road by the performance on another, to know that the conditions were similar, would it not?

A. It certainly would.

Q. What are the heavy traffic expenses which you think would be

chargeable entirely to interstate traffic.

A. Principally the outside agencies, termed "foreign agencies" located off the line of railroad-take, for instance, a line running through Arkansas that would have a large Eastern agency in New York, Philadelphia, Pittsburg-manufacturing centers where they maintain large, and frequently very expensive offices, to obtain traffic for these lines.

2697 Q. You assume, I understand, that the service rendered by those foreign agencies have no effect upon the intrastate traffic and base your view upon that assumption: is that correct?

A. That is the idea.

Q. What are the duties, generally, of these foreign agents?
A. I would say that is their principal duty, the soliciting and obtaining of traffic.

Q. You mean by that, traffic that goes—we will say from one section of one State into another section of the country or state.

A. Traffic that practically goes from the territories that they They represent territories in these manufacturing inrepresent. terests.

Q. Let us assume that each of these railroads engaged in this litigation have an agent in Chicago for the purpose of soliciting traffic: that agent will solicit traffic that will probably be carried from Chicago to various points in Arkansas?

A. To various points in Arkansas and even beyond. Q. We will say the State of Arkansas.

A. Yes, 'sir.

Q. And, on the other hand, he will solicit traffic that will involve a movement from Arkansas to the territory which he repre-2698 sents his companies in: that is true, too, is it not?

A. To some extent, yes, sir.

Q. Do you say that the traffic that is influenced in that way does

not affect intrastate business in the State of Arkansas?

A. It is interstate business if it moves from this territory into Arkansas and it is certainly interstate business if it moves from Arkansas into this territory that he represents. I do not see how

you can charge it to intrastate in any way.

Q. Suppose you are an agent of the Cotton Belt Railroad in Chicago and you are able to influence a shipment of one hundred car loads of freight to points on that line in the State of Arkansas: after that freight is carried to Arkansas what becomes of it?

A. After it is carried into the State of Arkansas?

Q. Yes. Is it not distributed on local trains and to local points

in the State?

A. Not necessarily on local trains; or, or at any rate, it would not be considered local traffic regardless of the train it was on. It would be interstate traffic regardless of the distribution after it reached Arkansas.

Q. So you do not think it affects the local business at all?

A. No, sir.

Q. Have those agents any other duties to perform besides

2699 soliciting freight?

A. That is the principal duty. I doubt if they have any other.

Q. Are there agents for the purpose of soliciting immigration into the State and procuring industries to be located in the State?

A. Yes, sir.

Q. Do they have any influence on local traffic in the State?

A. Not as far as this foreign agent is concerned.

Q. You do not think that should be made a charge on intrastate traffie?

A. No, sir.

Q. I want you to explain to me, Mr. Fitzgerald, what you understand the method is of dividing train costs adopted in these exhibits;

just explain to me, please.

A. As I understand it, they have obtained the actual cost of the local and through trains. They have apportioned that to intrastate and interstate on the basis of the number of tons carried, of each respective class of freight.

Q. In other words, it is apportioned between state and interstate

business on the ton mile theory, is it not?

A. On the ton mile theory.

Q. Do you regard the ton mile theory as a proper theory of apportioning the expense of state and interstate traffic?

A. I regard it as the nearest applicable unit that affects

2700 the train service generally.

Q. Is the expense of handling and moving different kinds of tonnage uniform, or is there a difference in the different classes of traffic?

A. Taking the different classes of traffic as a whole, my idea is that moving a top per mile, there is very little difference as a whole. Q. Does the length that it is moved have any influence upon

the cost per ton per mile of moving it?

A. I should say not a great deal as between the two different classes of traffic for the reason that they are moved on local and through trains. The fact of the two different classes of traffic moving on both classes of trains would bring about very little difference in the final results of the cost per ton per mile, in my opinion.

Q. You know we have problems of this sort on averages to get down to a basis: if you knew that the average length of the haul of the intrastate freights were—we will say fifty miles, and the average length of haul of the interstate was 150 miles, you would take that as indicating the average difference of the service insofar as the length of haul was concerned, would you not?

A. No, as I say, the fact of the different classes of freight moving on both kinds of trains, I do not believe that there would be any

great difference.

2701 Q. In the question I asked you we are not dealing with the difference in train costs, but in the difference of the cost of handling state as against interstate.

A. Yes, I understand that.

Q. Now, if the average length of haul of the two kinds of traffic, were as I stated a moment ago, respectively 50 and 150 miles, you think that would not influence the cost of the service of moving the two kinds of traffic?

A. Not when it comes to arriving at the average per ton per mile, no. I do not think it would influence it to any noticeable extent,

in the average.

Q. You think the cost would not be influenced, either, by the difference in the character of the tonnage?

A. I do not see why the difference in the character of the ton-

nage would have any effect, on the same class of tonnage.

Q. What I mean is this: interstate traffic is made up of a great variety of different sorts of commodities and different classes of freights:

The state traffic is also made up in the same way:

What I want to ask you is this: have those differences an effect in determining the relative cost as between the different kinds of ton-

nage carried in both state and interstate traffic?

A. Yes, I should say they would, if the conditions brought about so that there was a different commodity that required a heavier train expense, it would result in a different average.

Q. Would it cost as much per mile to move a car load of brick

one hundred miles as it would to move it twenty five miles?

A. I have never been able to get any cost on the moving of any particular commodities.

Q. How are the rates affected by those two distinctions? would it have an influence on the rates?

A. No, I do not think the rates are governed by-

Q. The rate diminishes in proportion as the distance increases, does it not, in railroad transportation?

A. That does not always govern, the distance.

Q. What is the general rule in state traffic?

A. I do not believe there is any general rule followed. The general rule is to go out and get the business regardless of what you have to—that is, on interstate traffic.

Q. I am speaking of state traffic.

A. Well, in state traffic probably the distance would be considered, of course.

Q. It is a minor quantity, though, is it? Is that what you mean

to say?

A. No, it is not a minor quantity; not as much so as in the interstate.

Q. Did I understand you to say that railroad rates were not adjusted with reference to the cost of the service that is incident to the handling of the freights?

A. I would say that generally speaking. I am not a rate man, though, and not qualified to say what the basis of rates are; but

generally speaking——
Q. How do they manage to keep railroads running if, they do not have some reference to the cost in adjusting the compensation for the service?

A. Their guesses have been on the right side, I suppose.

Q. Then, you think that railroads are different in that respect than all other industrial and commercial concerns?

A. To a greater extent, yes, than the commercial business.

Q. There is no relation between the adjustment of rates and the cost of the service? Is that what you say?

A. I did not say there was none. I said that it was seldom con-

sidered or not often considered.

Q. Then, if it is not often considered, that practically means that the rates are adjusted without reference to the cost, does it not?

A. Yes, sir.

Q. In that respect, would you say that that is true of industrial and commercial business, usually?

A. I have never had any experience in any other line of business. I would not be qualified to say what they do, generally.

Q. What is your idea about a man that is manufacturing brick, for instance, or cloth? Does he not adjust his price somewhat with reference to what the cost is of producing the thing he has to sell?

A. Yes, and he can very likely do that.

Q. Do you think that the railroads disregard in their rates, those conditions that would be regarded by the man

engaged in manufacturing?

A. No, I would not say that. I think that as a prime instance, they, of course, consider distance and cost, but they get away from that when they are making rates on a great deal of their business. I do not say that the railroads do not consider that entirely. That would be going too far.

Q. Mr. Fitzgerald, to go back for a moment to that ton mile theory: what is your view as to the relative cost per ton mile of moving or transporting a heavy and dense article—we will say brick or heavy steel rails; those being articles that are not easily susceptible to damage and in respect to which there is very little expense in the way of loss and damage—as compared with the cost of moving light and more valuable commodities, we will say baskets. Let us compare baskets with a car load of steel rails or brick:

What is your idea of the effect of the difference in the characteristics of those two kinds of freight, upon the expense per ton

mile of moving it?

A. There are certain conditions in the movement of one class there that are probably off-set by conditions in the other that it would be hard to be able to tell what the differences would be.

Q. So, in your judgment, when you even it all up, those differences would not affect the fairness of the application of the ton mile theory? Is that your idea?

A. Yes, sir.

2705 Q. You stated in answer to a question propounded to you by Judge Hill, that the arbitraries that were allowed in the exhibits, in this case by Mr. Wharton, provided for the difference in the expense of moving state and interstate traffic:

Please tell me what those arbitraries are that you had in mind in

making that statement.

A. Well, these arbitraries here—this is fifty per cent added to local engine mileage in station switching; the engine mileage multiplied by two and one half to get the equivalent in car miles; extra mileage added under locomotive repairs.

This item under freight cars of approximation arrived at by Mr.

Wellington.

The mileage added for stopping and starting expense. All the

way through here.

Q. Do you think those allowances for arbitraries would cover the difference in the cost of handling that may exist in the expense of handling state and interstate traffic?

A. I would say, at first glance, without being able to study the conditions that exist in each instance, that they appear to me to be

fair. That is only in a general way that I would say that.

Q. Have you had sufficient experience in transportation and in the operation of trains to qualify you to judge of that, do you think?

A. No, that is why I qualified my testimony by saying that I believed an operating official could more thoroughly pass on that and explain it.

Q. You do not claim to be competent to pass upon those ques-

tions?

A. No, sir.

Q. Mr. Fitzgerald, I understand from your statements that your experience in connection with railroad accounting has been confined to Texas roads, has it not?

A. Yes, sir, it has.

Q. Have you had any experience in dividing expenses between states?

A. No, the only experience I ever had in that respect was the

time that I have shown that I worked for the Southern Pacific. where we had a line in Louisiana and Texas, for which we had to make an Interstate Commerce report. The expenses then were divided arbitrarily, unlocatable expenses being divided on a mileage basis, road mileage and train mileage.

Q. Is that the extent of your experience?

A. Yes, sir, as between states.

Q. Who prescribed the method of division that was adopted in that case? I mean what official of the railroad?

A. I do not recall.

Q. What connection did you have with it, Mr. Fitzgerald?

A. Why, I was voucher clerk at that time.

2707 Q. You simply did the clerical work?

A. Yes, sir.

Q. Have you ever had occasion to give any careful consideration to the revenue basis of dividing expense between states, and between state and interstate?

A. Not in my railroad experience, I never have had. Since then

I have studied the question some.

Q. When did you first see the formulas that were contained in these exhibits that were filed by Mr. Wharton in this case? A. At the time they were offered in evidence here.

Q. Some two weeks ago?

A. Yes, sir.

Q. You had no opportunity to study or consider the methods that were adopted there prior to that time?

A. No, sir.

Q. Your statements are based upon the knowledge acquired in respect to them since the exhibits were filed in this case? Were you here at the time those exhibits were filed, some two weeks ago?

A. Yes, sir.

Q. Did you go back to Texas?

A. Yes, sir.

Q. Did you resume your work in connection with the Texas Commission when you went back?

2708 A. I did to a certain extent, but at the same time devoted a good deal of time to the consideration of the facts as shown in these exhibits.

Q. And that is the extent of your acquaintance with the methods adopted there, such thought as you were able to give it during that time?

A. Yes, sir.

Q. You stated on your examination in chief that the gross ton mileage was equivalent to the engine and car miles, I think: in what

way is that correct?

A. I meant they were practically in the same proportion for the reason that taking the engine miles and the car miles we have everything except the tons in the train and the weights of the engine, and those would probably fluctuate in the same proportion. That is what I meant by that. They would be greater, but they would naturally fluctuate in probably the same proportion.

Q. You think that would be true of the contents of each train, Mr. Fitzgerald?

A. Very nearly so.

Q. And for those reasons you still maintain that the engine and car miles would be equivalent to the gross ton mileage?

A. In approximation it would bring about very nearly the same

results, I should say.

Q. Did I understand you to say that in your opinion the revenue basis of a large portion of the expenses of a railroad which you placed at sixty percent, goes on regardless of the revenue and that part of the expense does not depend in any way upon the volume of traffic?

A. Yes, sir.

2710 Redirect examination.

By Mr. HILL:

Q. In discussing with Mr. Moore the division of miscellaneous revenue, I understood you to say that you had no objection to dividing revenue on revenue.

Mr. Moore asked some question about expenses which I did not quite catch: I will ask you if you made any statement about dividing

miscellaneous expenses by miscellaneous revenue?

A. No, sir, I did not understand his question to have any reference

to any expenses whatever.

He started out, as I recollect, in dealing with the division of miscellaneous earnings and my idea was that it would be proper to divide revenue on revenue, and that is really where I intended to stop.

Q. You mean the common?

A. Yes, the miscellaneous. Q. Which is not definitely located?

A. Yes, which is not definitely located to anything on the relative proportion of the other earnings that are located.

Q. You did not understand any question about the division of

expense on that?

A. Not in that connection, no, sir.

Q. Mr. Moore asked you some question about how much of the wear and tear on tracks was due to the passing of trains: I do not recall your answer about it:

I want to know if it would affect your opinion as to the division of maintenance of way on car mile basis, whether a large or a small part of the expense of maintenance of way was due to natural causes like

weather or wind?

A. No, sir, I hardly think it would. The prime motive is there to carry these expenses, these outside expenses, we will say, that are affected by other elements. They are there for the purpose of maintaining the track which is affected by the car mileage, we will say. For that reason I don't think that any material difference would be made there.

Q. As I understand you, it is a question of the up-keep of the plant for the use of the train and whether the expense incurred in that up-keep is due directly to the use of a plant by the trains or by natural causes that that would not make any difference in dividing

the expense on a car mile basis: is that correct?

A. I would answer from the experience I have had with roads adopting the engine and car mile as a basis for maintenance of way expenses, as a whole, that would make no difference what would be the cause.

Q. Mr. Moore questioned you about items in the exhibits under the head of "Supervision and General" and asked you what was included therein: What did you understand was included

in those items of "Supervision and General"?

- A. From the terms used on the statements or exhibits, I would take it that the expenses falling under those heads as prescribed by the Interstate Commerce Commission classification have been followed,
- Q. Mr. Moore questioned you about whether you had had any experience in your railroad work of dividing expenses between state and interstate:

I will ask you if you have had occasion to consider, investigate and

study that question since you left the railroad service?

While in the railroad service the question had not been considered or worked up to any great extent, but since I have been with the Commission we have considered and studied that question

to a great extent.

Our conclusions in that respect have been to start with obtaining the unit of revenue on each class of commodity. We have made changes in our reports for this year on that basis and that is as far as we have gone, the intention being not to make any changes in connection with the expenses until we are more satisfied as to a plan that might come nearer bringing an approximate result.

Q. You mean, that you are trying to find out from the railroads

the cost and the revenue on given commodities, is that it?

A. On given commodities.

Q. That is what you are now working on?

2713A. On different commodities and classes of traffic, both local, intrastate and interstate, and we have formulated a plan for

Q. So this question of division between state and interstate is a pretty live question before your Commission right now, is it not?

A. Yes, sir, very much.

Q. Mr. Moore questioned you about how much time and consideration you had given the exhibits in this case and you answered him and in your answer you explained what time you had given:

I will ask you if there is anything in these exhibits that a railroad accountant is not in general familiar with? That is, are any bases

used that are not familiar to railroad accountants?

A. Eliminating the percentages that have been added arbitrarily I don't see that it requires any considerable time to reach a conclusion in respect to the bases that have been used, owing to the fact that they are so generally adopted and in practice.

Q. These are largely elemental bases in railroad accounting, are they not?

 A. Yes, sir.
 Q. I believe you stated either in your dierct or cross examination, that the constant expenses, or a large percentage of the expense of

a railroad company, irrespective of the volume of traffic: have 2714 you any authority or reason upon which to base that state-

A. Yes, sir, I obtained that from a work here that I have that is considered an authority on railroad matters.

Q. What is the work?

A. It is entitled "American Railroad Rates," by Walter Chad-

wick Noves.

Q. I wish you would read into the record his statement on that subject, on which you relied in giving your testimony, giving the page.

Mr. Moore: I wish to enter an objection to that because I do not think it is competent.

A. On Page 17 there are tables showing the different classes of expenditures and "proportion of constant expenses to total expenditures" and "Proportion of fluctuating expenses to total expenditures."

Under the first heading is shown:

"Fixed charges25%	
C-1 I	
General Expenses	
Maintenance of way and structures	
Maintenance of Equipment	
Conducting Transportation14%"	

That aggregates 59% and I merely used 60% as an average in my statement, not recollecting the exact figures.

Q. You had in mind the authority that you quoted in making that statement?

A. Yes, sir.
Q. Is that a recognized authority on the subject? 2715

A. It is, as I understand it, yes, sir.

Q. Mr. Fitzgerald, Mr. Moore questioned you about the use of a ton mile theory, as he called it, of dividing expenses: I would ask you if the ton mile division here in these exhibits between state and interstate, after these various expenses have been worked out as shown in the exhibits, is the ton mile division of expenses as commonly understood when it is referred to as the "ton mile theory"?

A. No, I would take it not; that the ton mile theory is most probably meant to be the using of ton miles only, applicable to the total

expense.

Q. Where does this differ from that?

A. This differs in the location of certain items actual before you make this division.

Q. And the location between different classes of train service,

A. As well, making it, in my opinion, a closer approximation than

if we apply the ton miles as a whole.

Q. In your opinion, is this a closer approximation of an actual condition than the use of the ton mile as it is commonly done? A. Yes, sir.

Mr. Moore: I will ask you not to put your questions in such a leading form, Mr. Hill.

2716 Recross-examination.

By Mr. MOORE:

Q. With the exception of the location of certain items mentioned in your last answers, is not the method adopted by the state's accountants in the exhibits in regard to which you have been testifying, the ton mile theory of division of expenses between state and interstate traffic?

A. The ton mile theory-I don't quite understand what you

mean.

Q. You have heard the expression "ton mile theory" and "revenue theory," and perhaps others spoken of, respectively, as bases for dividing expense of operation between state and interstate traffic, have you not, Mr. Fitzgerald?

A. You might term it a ton mile theory in so far as the exhibits

show that it treats with certain expenses. It shows for itself.

Q. You stated on your re-examination that the division made in these exhibits was not the ton mile theory and when asked to state the difference between the division that is contained in these exhibits and the ton mile theory of dividing expenses, you said that it was in the fact that certain items of expense have been located in these

The question I ask you is, if with those exceptions—aside from those exceptions, is not this method of division made on the basis

of ton miles?

A. Yes, I would say, making those exceptions, that it is. Q. What part of the "miscellaneous revenue" did you have 2717 in mind in the statement referring to that part of it which is not

A. Those items that are enumerated, such as miscellaneous earn-

ings not applicable to-

Q. I know, but this afternoon you spoke of certain parts of miscellaneous revenue that could not be located: I wish you would point out what proportion or what part of miscellaneous revenues it is that cannot be located as between state and interstate traffic?

Mr. HILL: I did not say state and interstate.

Mr. MOORE:

Q. What part of it is it that cannot be located?

A. As between what?

Q. I am asking you what you refer to, if not between the two classes of traffic we are discussing, then what are the classifications between which it cannot be located?

A. It cannot be located between the classes of traffic or classes of service, a good deal of it.

Q. There is not any part of the "Miscellaneous revenue" that cannot be located for the purpose of determining whether it accrued from the state business or from the interstate business, is there?

A. Well, I would have to go over the detail of classification

of operating revenues to answer that.

Q. Have you had any experience as to the division of expense of "Maintenance of way" between local and through trains?

A. Division between local and through trains?

A. Have I had any experience?

Q. Yes.

A. No, sir. Q. You have not?

A. No. sir.

Q. You stated that in your experience in dividing "Maintenance of way expense" the car miles had been used: what was the character of the division to which that was applied to, Mr. Fitzgerald?

A. Division between freight and passenger.

Q. You referred a while ago to the division of general expense and expense of supervision, under the head of "Maintenance of way" prescribed by the Interstate Commerce Commission which you say is followed: what is the division prescribed by the Interstate Commerce Commission?

A. I referred to it being analogous to the general shop expenses under "Maintenance of Equipment" prescribed by the Interstate Commerce Commission as being chargeable over the various accounts

that are affected.

Q. Do you know how the Interstate Commerce Commission treats that item of expense "General & Supervision" under the head of "Maintenance of way" in the matter of dividing it between the various branches of service?

A. Only in a general way. I have not had the recent rulings.

Q. What is your understanding about that?

A. That the general shop expenses are divided over the accounts affected according to the work that is done of each account.

Q. What shop expenses enter into "Maintenance of way" mat-

ters?

A. Not "Maintenance of way"; this referred to "Maintenance of

Equipment" this supervision that you speak of.

Q. You referred to an order of the Railroad Commission of Texas, made with a view of dividing expenses as between state and interstate traffic. That order was enjoined by the Courts down there, was it not?

A. I was not speaking of an order in reference to a division of expenses. I referred to an order respecting-not an order either, but the consideration that we have been giving a division of revenue; that was what I referred to. I did not say anything about ex-

Q. Division of revenue?

A. Yes, sir.

Q. Explain that a little more fully?

A. Judge Hill asked me if we had given any consideration to the question of division of expenses between state and interstate service. I replied that we had the matter under consideration and had been giving it a great deal of study. we had, however, only reached so far, the division of the revenue. That now that we have reached the division of revenue we expected later to obtain some bases for the division of expenses in order to obtain the net.

Q. Have you adopted a plan for the division of revenues as be-

tween those two lines of traffic?

A. Yes, sir, we have adopted one.

Q. What is that?

A. It is a division between actual—an actual division of freight transportation by commodities, showing it between local, intrastate and interstate.

Q. Does not that divide itself?

A. Yes, sir, that will divide itself.
Q. It does not require any consideration or plans to divide that? A. It does not require any plan, but we put the plan into effect.

It is a question of obtaining the result from that plan.

Q. You say the basis of division contained in the exhibits that have been discussed today are familiar to accountants and are largely elemental: has that basis been used for the purpose of dividing expenses between local and through trains, or has it been

used for the purpose of dividing between freight and passenger and on lines that cover more than one state, between Is that not the way on which those bases have been used heretofore?

A. They have been used, in the experience I have had, as a

division between freight and passenger.

Q. Mr. Fitzgerald, I wish to call your attention to the volume you introduced a while ago and from which you quoted, "American Railroad Rates" by Noves, and ask you if at Page 37, he does not make this statement in regard to the relation of the cost of service

to the rate of transportation:

"1. The additional expense incurred in rendering the particular service-cost of service in its narrowest sense-determines the minimum charge and is consequently an element in fixing the rate. is always important to ascertain that amount of tare—the proportion of dead to paying freight. Freight carried in half empty cars costs more than full loads. It is equally of consequence to know whether the cars can be returned loaded or must return empty. Other consideration which to a greater or less degree affect the actual expense to the railroad of moving the particular freight, and consequently enter into the rate, are (a) the bulk of the goods transported; (b) the weight; (c) the method of packing and protection; (d) the extent of the shipment and whether in carload lots; (e) the kind of ears required; (f) the necessary speed, and (g) the necessity for ice or heat. Mileage, of course, is also a most important factor."

Do you regard that statement of Mr. Noyes' as a correct representation of the conditions of which he is speaking?

A. Not being a practical operating man, I don't feel qualified to

pass on Mr. Noves' statement at all.

Q. I believe you stated Mr. Noyes' was recognized as an

2722 authority?

A. Yes, in making rates, as it is termed here. We have to accept this also, I suppose, but as far as I am concerned I couldn't pass on it.

Redirect examination.

By Mr. HILL:

Q. You spoke of the division on a ton mile basis here being the ton mile as used with the exception of those items as were actually located: what do you mean by the "exception of the items actually located"?

A. I meant that if you made those exceptions, why your basis was on a ton mile basis. That is, if you made those exceptions.

Q. Just what exceptions are you referring to?

A. All that are included in the exhibits.

Q. In "Maintenance of way" and "Maintenance of Equipment"?

Mr. Moore: No, he read them this morning; 50% allowed in one place and 50% allowed in another.

The WITNESS: I enumerated all of them; all of the exceptions

that are in the exhibits.

Mr. HILL:

Q. Here is the point I want to get at: I will have to put it as

a leading question to make myself clear:

You mean by these exceptions those which are actually found, like loss and damage, wages and fuel, or do you mean exceptions of accepting these standard bases like "Maintenance of Way" 2723 and "Maintenance of Equipment"? I want to get your

doo

A. As I understand the question—would this be on the ton mile theory, as it is termed, if these other bases are eliminated?

Q. Yes, what bases were you referring to? That is what I want

to get into the record.

A. I am referring to the entire exhibits; that if you eliminate everything there then you bring it down to nothing but a ton mile basis.

Q. I believe that you have already stated that having made these exceptions, that you got a more actual approximation than if you used a ton mile, broadly, so to speak.

A. I believe that, pertaining to a good many of the matters on the bases prescribed in those exhibits, brings about a nearer approxima-

tion.

Q. In referring to this division of unlocated expenses, "Miscellaneous revenue", say rent of buildings or something of that kind: was that division not the revenue on a revenue basis of these

unlocated items, between state and interstate or passenger and freight, or between some other classes of traffic?

A. What division do you refer to, Judge?
Q. The division of the unlocated "miscellaneous revenue": say, the rent of a building; common miscellaneous revenue.

A. In what instance do you mean? 2724

Q. In answer to Mr. Moore's question about how you would divide those unlocated items of "miscellaneous revenue" were you referring to a division between state and interstate or a division between freight and passenger? You testified you have known of it done on revenue on revenue?

A. I had in mind the division between freight and passenger. I think that the division between state and interstate would probably

follow in the same line.

HENRY WILLMERING, being recalled for cross-examination 2725 desposed as follows:

Cross-examination.

By Mr. MOORE:

Q. Have you the formula I asked you to prepare?

A. Yes, sir.

Q. What is your relation with the Oklahoma Corporation Commission?

A. I have been designated Auditor in charge of its Division of ac-

Q. What are your duties?
A. My duties are to prescribe accounting systems under the direction of the Commission, for various public service corporations operating in the State of Oklahoma, and to analyze the returns made to the Corporation Commission of Oklahoma, the reports, monthly returns and annual returns, and to direct the compilation of statistics compiled therefrom, and my principal duties are to investigate all branches of public accounting bases, and to recommend to the Commission systems of accounts for public utility companies operating in the State of Oklahoma.

Q. Has the commission a rate clerk, an agent who has duties

to discharge in connection with railroad business?

A. It has a man in charge of its Traffic Department.

Q. Who is that man? A. Mr. C. B. Bee. 2726

Q. What are his duties?

A. His duties are to keep in touch with rate situations throughout the United States and particularly in Oklahoma; to see that all tariffs are properly filed in a systematic way, and to direct the filing of same; to keep posted on rate affairs throughout the country in general, and to assist the commission in prescribing rates for railroad companies operating.

Q. Has the Commission any other assistants in the discharge of

its public duties besides its auditor and rate clerk?

A. It has a force of about twenty men.

Q. What are their duties, clerical principally?

A. They are assigned to assist Bee and myself, and to assist Capt.

Lee, the engineer of the Commission.

Q. I believe you stated on your examination in chief, you began your first employment in connection with a railroad, as yard clerk of the Pennsylvania Company in the City of Chicago?

A. Yes, sir, in 1892.

Q. How long did you remain in that position?

A. Several months. The positions I occupied in the Pennsylvania service was yard clerk at the 55th Street Yard, and local car accountant at that yard office; afterwards, I was assigned to the downtown local freight office; I had charge of the reports issued to

the auditor for waybills outbound; it was as a billing clerk that I entered the service of the Pennsylvania Co.; that 2727

was the extent of my connection with them.

Q. How long were you employed by the Pennsylvania Railroad in Chicago?

A. I believe a little over a year.

Q. How old were you when you began in their employment?

A. 21 or 22; I had some previous experience prior to that, but I have not put it into the record.

Q. I was going to ask you what your occupation had been before

you took employment on the Pennsylvania Railroad?

A. I assisted my father in shipping grain and live stock from Iows points; I was bookkeeper for him part of that time.

Q. What was the character of your duties as yard clerk in the Chicago office?

A. Ordinary duties assigned to a vard clerk.

Q. What are they?

A. Checking up the yard and trains that arrive in the yard, keeping a record of the arrival of cars.

Q. How long were you engaged in their service as yard clerk? A. I couldn't tell you; my service with the Pennsylvania Co, was about a year and a half.

Q. What was your next service after yard service? A. With the Wabash.

Q. I mean with the Pennsylvania; you enumerated two or three lines of work that you did there; what was the next one that you mentioned?

A. Local car accountant for the 55th Street yard. Q. What were you duties in that capacity?

A. The duties were to enter up the cars in a systematic 2728 way, in a record kept for that purpose, and indicate whether they were empty or loaded, and indicate the billing in the car record, showing the disposition made of the car, by symbols we used for that purpose.

Q. What was the next duty you spoke of? A. Abstract clerk in the downtown office.

Q. What were your duties in that connection?
A. To report waybills forwarded, showing the different charges

and the prepay, and to strike a balance with the cashier on prepay, and on advance charges.

Q. That was your line of work with the Pennsylvania Co.

A. Yes, and the billing of freight.

Q. Where did you go when you left the service of the Pennsylvania Co., what was your next employment in connection with the railroad service?

A. With the Wabash Railroad Co.

Q. When did you enter that employment?

A. A short time following the time I left the Pennsylvania Co.

Q. That was in 1895 or 1896?

A. I don't recall the year, somewhere around about that.

Q. What were your duties?

A. My first assignment was clerk in the claim and tracing department.

Q. What were your duties?

A. In tracing shipments received and forwarded from Chicago and in looking up records generally, with relation to claims that were submitted for payment. 2729

Q. How long did you continue in that service?

A. Less than a year in that particular desk.

Q. What change was made?

Λ. I was afterwards assigned to the cashier's department as bookkeeper.

Q. What branch of accounts were you employed in, in connection

with those people?

A. Accounting for revenues, and compiling statistics to show the cost of handling tonnage there through the warehouse, and compiling statistical information with relation to station business generally, and preparing the payrolls for that station.

Q. You spoke of the warehouse-you mean the warehouse in

Chicago?

A. Yes, sir, they were quite extensive; I think they had two or three hundred men working there.

Q. How long did you remain with the Wabash?

A. I remained with the Wabash,-I was made cashier, and I was an agent; I was with them until sometime in 1902 I believe. Q. Until 1902 That was several years ago?

A. Yes, sir.

Q. What was your business as cashier?

A. Collecting revenues and accounting for them.

Q. The ordinary duties of that office? A. Yes, sir, at a large station like Chicago.

Q. Were you located at Chicago?

A. Yes, sir.

Q. Any special branch of the Company's service which 2730 engaged your attention?

A. What do you mean?

Q. Were you the general cashier or were you the cashier-were your duties as cashier limited to some department of the company's service?

A. Limited to the freight service.

Q. Did it cover all the departments of the freight service?

A. All revenues in any way collected in the City of Chicago.

Q. Those duties were local to the business of Chicago?

A. Yes, sir.

Q. In other words, you were the cashier at that station, and for the business transacted at that station?

A. I was held responsible for cash collected at that station and

accounted for.

Q. Your duties were to account for, hold and take care of cash collected there. You disbursed it too, did you?

A. I remitted it to the treasurer of the company.

Q. Where and when did you act as agent on that line?

A. At Chicago Ridge, located in the outskirts of Chicago, interchange point with the Chicago Junction Railroad and Chicago & Western R. R.

Q. Is that in Chicago?

A. It is in the outskirts of Chicago. Q. It was a local station there?

A. Junction point with the Belt lines.

Q. Your duties with those was as ordinary station agent?

A. Yes, sir, accounting for freight revenues and passenger 2731revenues, and handling of tickets and express matters.

Q. The duties usually discharged by a station agent?

A. Yes, sir.

Q. And you were engaged in that service until 1902?

Q. In any other branch of service than you have enumerated?

A. No, sir.

Q. What road were you connected with after you left the Wabash?

A. M. K. & T., Missouri, Kansas & Texas.

Q. What was your engagement with that company?

A. My first assignment was as cashier at Cleveland, Okla., afterwards I succeeded as agent.

Q. Where is Cleveland in Okla.?

A. In Pawnee County, in the oil producing district.

Q. How large a place is it?

A. They had a population of about five thousand at that time; the maximum revenue was about \$40,000 a month—it was one of the best stations on the M. K. & T. R. R.

Q. You were stationed at that place? A. Yes, sir, I was local agent there.

Q. What is the station between local agent and station agent?
A. There is really no distinction.

Q. I suppose you discharged the duties of station agent?

A. Yes, only the duties are more extensive, and more responsible than those performed by station agents at ordinary local stations.

Q. That grew out of the great volume of business there?
A. Yes, sir.

2732

Q. Duties that were of the same character?

A. Yes, sir, only more extensive than those ordinarily performed by a station agent.

Q. You say that place had a population of four or five thousand?

A. It did at that time. Q. What has it now?

A. It is a city of the first class now; it was recently made a city of the first class, and the requirement is 2500 under the Oklahoma laws; it is not as large as it was at that time.

Q. How long did you remain there in that service?

A. I resigned in May, 1907.

Q. What were your next duties in connection with railroad work? A. Since my assignment with the Corporation Commission of Okla.

Q. When did you become connected with the Corporation Com-

mission?

A. November, 1907.

Q. When did that Commission get organized and enter upon the

discharge of its work?

A. In November, 1907; that was the beginning of the Commission, and the organization was, as far as the accounting and the statistical and accounting department is concerned, was under my direction.

Q. Your experience in disbursing the moneys of a railroad and in statistical work is confined to local agencies and local points

that you have enumerated?

A. In so far as actual experience is concerned, I have always kept my ears and eyes open, as the fellow said, and kept informed on all branches of the service.

Q. What I am speaking about is your experience in duties that have been discharged by you in the employment of railroad com-

panies?

A. Along lines I have indicated and testified to, yes, sir. Though I might say, since the beginning of the Commission, I have given all my time, attention and thought to this accounting problem, and have been diligently searching for the truth.

Q. Has the Oklahoma Commission been endeavoring to find some basis of dividing and apportioning expenses of railroad operation?

A. Yes, sir. Q. Have they ever adopted any system?

A. They are at sea just like the accounting officials of railroad companies, they are Tyros, they are beginners.

Q. You have never been able to arrive at any satisfactory results? A. No, sir, we can never get the accounting officials of the railroad companies to agree to anything or submit any proposition.

Q. How long have you been engaged in trying to arrive at the

truth?

A. Ever since almost since the beginning of the Commission.

Q. Did the Commission submit formulas to the railroad or did the railroads have the matter left to them?

2734 A. They submitted a formula; the first form was submitted to the accounting officials of the railroad company; it was similar to the one prepared by Commissioner Colquit of Texas; I think that was submitted to the Railroad accounting officials in the year 1908, and it was entirely ignored; -that is, in so far as its effectiveness was concerned; there was no hearing, in connection with it.

Q. What was provided for in that formula?

A. Revenues were to be kept in three divisions; local intrastate, interline intrastate, and Oklahoma prorata of the interstate business, and there were various bases used for the division of expenses.

Q. Did you ever submit any other formula to them?

Yes, we had a hearing in May, 1909; the accounting officials failed to agree—prior to that, we had a conference in May, 1908; in May 1908, we had a conference with the accounting officials in which Mr. Selig of the Katy-

Q. It is not worth while to go into the details that occurred; I

just want to know the results?

A. The results were that the accounting officials failed to agree. Q. So there never has been any satisfactory results obtained yet?

A. We are getting very satisfactory results in a way now, from a revenue standpoint, but not from an expense stand-2735 point.

Q. Have you a copy of the order that embodied that formula you spoke of, which was prepared by the Oklahoma corpora-

tion Commission?

A. I haven't a copy with me. Q. Will you furnish me a copy?

A. I will. Which formula do you have reference to? Q. The formula you spoke of as having been submitted, based on the form of the Texas Commission. Q. And the second one?

A. The second is our accounting order #201. Q. Will you furnish me with a copy of that? A. Yes, sir.

- Q. And also of the formula you prescribed, similar to the Texas formula?
- A. It was a tentative formula, submitted to the railway companies at that time; it was not a formal order.

Q. Could you obtain a copy of it?

A. I think so. I will try it.

Mr. HILL: We will object to that,

Mr. Moore: We will settle that after he has furnished it.

Q. Have you ever had any experience in operating a railroad as an operating official of a railroad?

A. Define the word "operating official," and I will be able to tell

you.

Q. The sense I used it in, any experience that brought you in contact with the practical operation of a railroad?

A. Yes, agent of the M. K. & T., at Cleveland, Okla.

2736 Q. What did you learn in regard to railroad operation? A. I learned facts in regard to the operation of local and through freight trains, and passenger trains from every day observation, and every day experience.

Q. If you have enumerated all your experience, you have never

had any experience as an operating official?

A. I merely executed the orders of the operating officials.

Q. You never acted in any capacity that connected you with the movement of trains, further than your duties as station agent?

A. Under the supervision of the operating official, yes, sir.

Q. Have you had any experience that would enable you to judge of the relative expense of operating a through and a local train?

A. Every day experience, yes, sir.

Q. What is the experience that would enable you to pass upon the relative expense of operating those?

A. Every day experience with the M. K. & T.

Q. You mean as station agent?

A. Whatever you are pleased to call it, yes, sir; my every day observation in the service of the M. K. & T., and since my service with the Corporation Commission, riding freight trains, and riding on passenger trains, for the purpose of discovering the truth.

Q. What experience have you had—the experience you have had is of that kind, not as one who was charged with the movement of

trains?

A. No, sir, not in direct charge—in moving trains, in

2737 what respect do you mean?

Q. In moving trains along on the tracks of the railroad? A. I have had direct charge of switching and movement of trains at Cleveland; there is where we handled from forty to fifty cars per day. I gave the directions to the conductor.

Q. In what way did you have charge of that?

- A. I had complete charge of his train while at that station. Q. Tell me what your direction connection with switching service
- A. At Cleveland, Okla.,—to go into details, we handled, during the boom, the oil excitement, from twenty to sixty carloads per day, and the team track and side track facilities at the beginning was limited, and it was under the direction of the superintendent of the line,-he gave me authority to take care of that yard, to see that there was no blockade there. Our division terminal point was across the river two miles away, and it was my business to take charge of local trains, of the local train crew, to direct switching operatings and the placing of cars, and to prevent a blockade in the yards from the division terminal point, and duties of that kind at a place where business was extraordinary.

Q. That was the extent of your duties in connection with switch-

ing service?

A. It gave me every day observation of local and through trains. Q. Just the same observation of any other man working around the station, he could see what was going on? 2738

A. It would all depend upon the man.

Q. Of course, but your opportunity was the same as any other man working at the station? A. Any other man working at the station did not have the op-

portunity to direct the operation of the trains.

Q. Did that experience qualify you to form an opinion, which you think would be well founded, as that of an actual operating

man and superintendent of the operations of a railroad, or someone directly connected with the movements of trains, as to the relative costs of locomotive supplies, fuel, etc., as between local and through trains?

A. You are confining your question to locomotive supplies, and

what other proposition?

Q. That is the proposition, whether your experience as station agent at Cleveland qualified you to form a judgment that would be well founded, on the basis of your own experience as an actual operating man, as to the proper division of the expense of locomotive supplies, as between through and local trains?

A. No, at that time I had no reason to give any thought to locomotive supplies, but since that time, as an accounting proposition, I

have given it much thought and study.

Q. I am not asking these questions for an idle purpose, what I am trying to get at is to ascertain to what extent the experience you have had with railroad operation would qualify you to form a judgment, and what the value of that judgment would be

as compared with other men that have been directly con-

nected with it?

A. You are confining your comparison to locomotive supplies, are you? If you will confine your questions to the real operation of local and through trains-

Q. Can you answer the question?

A. You are confining yourself specifically to locomotive supplies: I had no reason to investigation locomotive supplies at that time, but since I have.

Q. Did your duties qualify you specially to form a judgment as to the basis of dividing expenses of maintenance of freight cars as

between local service and through service?

A. The maintenance of freight cars can be actually located to the car; there is no reason for having any division between local and through trains; one car could be in a through train one day and in a local train the next day.

Q. How have you divided it in your formula?

A. Divided what?

Q. The expense of maintenance of freight cars?

that?

A. Between what?
Q. Between through and local service? A. On the basis of straight car mile basis.

Q. I thought you stated it could be actually located?

A. You confined it to the particular car itself?
Q. No, I asked you—what I asked you is this, I asked you if you were familiar with subject so as to qualify you to form a judgment as to the proper basis of dividing the cost of maintenance of 2740 freight cars, as between local and through service?

A. I think I am qualified to do that, yes, sir. Q. What experience have you had that would qualify you to do

A. The experience I have related, and the constant thought I have given to these matters, and the testimony I have heard in cases I have heard tried before the Corporation Commission of the State of Oklahoma, and the testimony of every prominent railroad man in cases heard before the Corporation Commission of the State of Oklahoma, and from conversations and inquiries made to operating officials in the railroad service.

Q. What is the experience that you have had to qualify you to

do that?

A. I have related my experience.

Q. The experience that you rely upon for your qualification, is that which you have already stated?

A. Yes, sir, and every day observation of the movement of trains.

Q. I want to call your attention now to some of these matters; I understood in your examination in chief, that you stated that the value of property of a railroad should be divided upon the ratio of the expense?

A. On the ratio of the cost of doing business, yes, sir.

Q. On what theory—on what ground do you base that view?

A. On many.

Q. Will you state them please?

of, and the revenue basis which has been submitted by some accounting officials, is erroneous, and the cost of doing business ought to be and is, in my judgment, the best basis, for the reason that it is more rigid, and not elastic like the revenue basis; the revenue basis would probably cause the value of property to be changed by ups and downs or the increase or decrease of rates, and Judge Vandeventer used it in his opinion written with reference to the temporary injunction granted in this case—

Q. Any other reasons upon which you base that? What has been your observation of the method that obtains in the ascertaining of the value of other classes of property, other than railroad prop-

erty?

A. We have had no occasion to make any division of the value of property within the confines of the state; we have attempted to get the actual cost of property within the state in order to get the value.

Q. Do you know of any class of property other than railway property, used for industrial or manufacturing purposes, for the purpose of producing revenue, upon which the value is ascertained on the basis of what it costs to operate it?

A. At this time, I cannot call to mind any, no, sir.

Q. If you were going to buy a manufacturing plant today, and you wanted to get at it for the purpose of determining what you would offer for it, would the matter of primary consideration

2742 be to you—would it not be rather the revenue that accrued from its operation, rather than the cost of operating, except as that cost might be one of the factors that entered into the results of its operations?

A. In its entirety it would be; the earning power of the plant

would be a factor, yes, sir.

Q. What body of officials assess railroad property in Oklahoma?

A. The Board of Equalization.

Q. Do you know whether they assess it on the basis of the cost

of operating the roads?

A. A basis of that kind is not necessary, because they assess it in the entirety; an assessment is based upon the cost or upon the expenditures made for the property; it is carried on the balance sheet; the costs of construction and replacement value are all taken into consideration and the stock and bond issue is taken into consideration; they use various bases.

Q. You say your commission deals with public utility corporations in Oklahoma. Have you any water or gas companies out

there?

A. Yes, sir.
Q. Do you know how the values of property are arrived at?

A. We don't make those.

Q. You come in contact with them, -in ascertaining the values of an industry of that sort, isn't it done upon the basis of their revenues?

A. No, the cost of property is primarily taken into considera-

tion.

2743 Q. Isn't the earning capacity a very important factor?

A. I don't think they give any consideration at all to the earning; the principal consideration is the capitalization, and the actual cost of the property, disclosed by their books.

Q. If property that costs a hundred thousand dollars,—we will take two propositions, each cost one hundred thousand dollars; one is earning 10% on the cost, and the other is losing 5% on the cost; what effect would those revenues have upon the value of those

properties? A. It depends on how economically those two properties are

managed.

Q. We will assume that they are managed equally as well.

A. Same kind, same class of business?

Q. Yes, sir.

A. Same value?

Q. I won't say that; we are trying to find out the value?

A. The same cost?

Q. Yes, sir, one is losing money and the other making it?
A. There would be something wrong with the direction of the

property.

Q. What would be the effect upon the value of the property, would the one that makes a profit and the other which makes a loss, be equal in value.

A. As a business proposition, it might have some effect in the price you or I would be willing to pay for the property.

Q. Wouldn't it be the dominant and controlling factor in determining the value of the property commercially?

A. The profits derived from it in business would have something to do with the value of the property.

Q. Do you not know, if you desired to determine the value

of the property, wouldn't you determine it on the basis of the revenues?

A. As an entirety?

Q. Yes? A. The revenue would have something to do with the earning

power of the property as a whole.

Q. It is a factor out of which the earning power grows: there cannot be any earnings unless there is revenues?

A. Profits are a great factor in all properties.

Q. I am speaking about the revenues; the gross revenues, you can't determine what the profit is, without taking into consideration first its gross revenue.

A. In all cases you have to take into consideration the revenues in order to find your profits, but that would not have anything to

do with the value of the property, the revenues alone.

- Q. There are a few leading matters I want to call your attention to, without an argument about them, and I want to see what your understanding is in regard to them; first, the productive power of property engaged in an industrial pursuit, is the most important factor in the determination of the value of the property, is it, or is it not?
 - A. Of course, the profits or losses have something to do with it.
- O. The most important factor in determining what profits are made is the gross revenues that accrue from the operation of the industry?

2745 A. That is one of many factors.

Q. That is the all important factor, isn't it?

A. No, sir, the prudent and economical management would be taken into consideration.

Q. I am going to assume the most prudent and economical management you can think of; in every case that I put that is assumed; in property that you want to ascertain the value of, isn't the first thing to be considered the gross revenue that can be produced?

A. I don't attach any importance to the gross revenue of that kind; if it was prudently and economically managed, as you say, I would make a rigid examination of the books and records to find if they paid more than the property was worth, what it cost, what it could be replaced for,-the revenues in themselves, would not be a very important matter provided there was an opportunity to make greater profits by some changes in property, or by the installation of new devices or changes in the management.

Q. I have excluded things of that sort, by assuming that the property is well managed. The point I want to get at is this, if revenues are not the basis commercially speaking, upon which the value of property of that character is based very largely, in connection of course with the cost of the property, or what it might cost

to replace it in its condition-

A. I don't understand why you persistently use the word "revenue;" I have said that profits and losses have something to do with 2746 Q. I want to ascertain the importance of the total revenues as one of the elements in arriving at the value of property in the instance I am giving you now?

A. Revenues as a whole should be given some consideration.

Q. Do you regard them as an important factor or not?

A. In my business, whether it be public utility or mercantile business, the earning power of property must be given consideration.

Q. How do you ascertain that?
A. From the receipts, from the revenues and the expenses, and

the resulting profits or losses.

Q. We are getting down now to business; if you want to ascertain the earning capacity of an industry, you first take its gross or total revenues?

A. It wouldn't be necessary to first give that consideration, no,

Q. You have to take that?

A. That would be one of the factors in arriving at the profits or losses.

Q. The other factor would be the expense of operating?

A. It would.

Q. And the difference would be the profit or loss?

Yes, sir.

Q. In as much as the revenue is the basis of ascertaining the value of property, in so far as the value depends upon its productive power, and the expense of production is also another factor but

the leading or controlling element or factor in determining 2747 whether the property has producing capacity that gives it

value, is the revenue that the output will produce—I will ask you, isn't the revenue, the earnings, a better representative of the value of property than the expense of operation, if you have to take one or the other as a representative of value of the property, would you not consider that the revenue would be the more logical than the gross expense of operating it?

A. No, I would not.

Q. You do not think so?

A. No, sir, I want to explain that answer.

Q. I would like for you to do it.

A. When I said that I would not, I had in mind the division, the different parts of the property on the basis of revenue, as are used in these rate cases, the property as a whole itself, the revenue would be given some consideration of course, and the resulting profits and losses, but confining my answer to these particular rate cases, and the division of property between state and interstate business, the revenue basis for either division of expense or for the division of property is all bosh, it is an absurdity, it is humbuggery; I have worked it out in all its different phases or branches; and it always results in giving one class of business unreal profits, and charging up property to a certain class of business, the values of certain classes of property which is unreal, which can be analyzed and discovered from analyzing the statistics and the accounts; it is

a very nice theory, but when you apply it to the existing 2748 conditions, you find that it is an imposition under a seemingly fair pretence.

Q. What do you think about expense as a fair basis of ascertaining the value, the cost of operation as a fair basis of ascertaining

the value?

A. I believe that it is more equitable than any other basis that

has been submitted.

Q. You stated in your examination that freight rates are made by the travelling freight agent or contracting agents or persons of that kind, intending, I suppose, to convey the idea that it is done by subordinary officials, what do you base that statement on?

A. Actual experience—everyday experience.

Q. Give me some instance now?

A. Freight rates are largely made on tradition and not on condition; commercial conditions and competition are taken into consideration; from my observation and from my experience, the travelling freight agent is employed for the purpose of contracting business and feeling the pulse of the business interests adjacent to the line of road or in his territory. If he finds that the standard rates will not move the stuff, he recognizes that there is a great amount of tonnage at a certain place which will move providing that rate was made reasonable or right, or would not be prohibitive,-it is recognized that rates have frequently been made that are lower than

the standard rates, and I have heard a great many prominent traffic men testify, some of the best in the United States, and 2749

I have cross-examined them and have repeatedly asked them if rates were made on the cost of service, and I never heard one of them-

Q. You are going outside of my question?

A. I never heard one of them reply that the cost of service had

anything to do with regulating them.

Q. The question I asked you was this, to point out to me the instances which you have known of, where freight rates were made

by these subordinate agents you have mentioned?

- A. From my own knowledge, at the time I was located at Cleveland, Okla., in the service of the Katy, the standard rate as I recall it, for logs and rig timbers for oil wells from Cleveland to Tulsa, and Cleveland to Bartlesville, was somewhere around ten or eleven cents; there were many rigs torn down in the Cleveland field, and I was asked the rate to those points; the shippers indicated that the rates were prohibitive, that they could not move the old stuff into this new territory at those rates, and I took up the matter up with our commercial agent, and told him if the rate was reduced to four or five cents, the stuff would move, and he took it up with his superior at St. Louis, and the rate was recommended and billing order was issue
 - Q. Who was that commercial agent's superior at St. Louis?
 A. The general freight agent.

Q. So you have got it away from the assistant up to the general—

do you know who he consulted before he gave you that special

A. The rates primarily indicate—I don't mean that rate 2750 was made by the traffic man or traffic men, but they primarily recommend the making of the rates; they knew the territory and reported to the superior officers—the cost of service had nothing to do with making such rates.

Q. If I understand the instance you have given was an exceptional one for the purpose of moving certain specific and specified articles?

A. While in the service of the Wabash and Pennsylvania I have known contracting men to make over night rates, and right along.

special rate orders would be issued.

Q. I asked you for an instance and you gave me one in your experience; I am confining my question to that, and asking you if the condition out of which that special rate was promulgated in the general offices of the Company at St. Louis, upon the recommendation of the commercial agent and yourself, if that wasn't an exceptional and especial condition that existed down there? Confine yourself to that instance?

A. It was the result of one of a good many special conditions.

Q. What are the others of many?

A. Well, in the establishment now of the brick plant at that place, I was connected with the commercial club at that point, and we had plenty of shale located there, but the prospective builders of brick plants indicated that it was a one line town "we can't do busi-

ness at a one line town, there is no railroad competition here. while your shale is good, and your inducements in other

2751 respects are good, we might be held up on account of there being only one railroad, by prohibitive freight rates." In connection with the commercial club, I recommended that the standard rate from that point to other points throughout the state be materially reduced—I took the matter up with the commercial agent, and as a result, the brick plant was built there, and the rates were given very much reduced.

Q. You wanted to build up an industry there?
A. Yes.
Q. You made the suggestion to the commercial agent?
A. Yes.

Q. Do you know who he went to?

A. To his traffic superior.
Q. It came up to headquarters, and they are finally passed upon?

A. Yes, sir.

Q. To get back to my question, I asked you if there was not an especial condition existing at that place out of which the concession was made as to the rate on timbers, of which you spoke in the first instance? That was an exceptional instance, wasn't it?

A. It might be-

Q. It was a rate made for the purpose of transferring certain material that had ceased to be needed at one place to another place, and they couldn't afford to do it under the general rates, and they made an application for a special rate that would enable them to move the stuff from one place to another?

A. That wasn't my motive, and I don't think that was the

2752

actual motive.

Q. I am asking you if that wasn't the actual facts?

A. It was to get business, to get tonnage, to move, to get some

Q. It grew out of those special conditions, and if that concession had not been granted, the material would not have moved, would it?

A. It might have been teamed over; it would not have been

moved on our line of railway.

Q. In making a special rate on material for brick, that was to get an industry started up there, that was the purpose for that?

A. One of the purposes, yes, sir.

Q. Do you know whether the traffic officials who acted on the recommendation made by the commercial agent, acted in total disregard of what it would cost to move that, or do you know whether they considered it or talked it over among themselves—I am speaking about your information?

A. The prime object was to get business?

Q. I am asking you if you know the methods that actuated those men, and do you know whether they, in determining that question, in their conference if they had any conference among themselves, or if one man did it, that they acted without regard to the cost of service and that was not involved in their consideration?

A. I believe he did.

Q. That is your opinion, do you state it so you can swear

to it? 2753

A. I will state it this way; it occurred to me this way: as it would to any sane man; if the old rate which was reduced about one-half was made upon the cost of service, the new rate must be made less than the cost of service, and if the new rate was made upon the cost of service, the old rate must be unreasonable.

Q. That is a process of deduction upon your part?
A. I have asked the question repeatedly of prominent traffic men, and they have never yet stated that they made rates upon the cost of service.

Q. Have you read any of the testimony in this case?

A. I have read some of the testimony of Mr. Doddridge and Mr. McPherson.

Q. Did you read the testimony of Mr. Watson, who is one of the traffic men of the Cotton Belt Railroad?

A. No. sir.

Q. Did you read the testimony of Mr. Perkins, who is General Freight Agent of the Iron Mountain Railroad?

A. No, sir, I have heard the testimony of every prominent traffic

Q. To go a little further into the instance you have mentioned, did the changes in rate go any further than to accommodate special conditions that existed there, or was there any general change in

rates applicable to the haul of the kind of material that was involved in those two instances you have mentioned.

A. It applied a much lower rate between Cleveland and the

2754 final destination.

Q. In the first place, as to the hauling of those particular logs, and the manufactured product of brick—

A. They were factors that were taken into consideration.

Q. Don't you know as a matter of fact, that railroads, like all other industrial concerns, have to make exceptional rates and regulations frequently, to meet exceptional conditions, that when they do they, they are not changing the prices which they charge in their general operation, don't you know that?

A. What prices do you refer to?

Q. Don't you know that fact, that railroads, under such conditions as you have described, in two instances you have referred to, might well make an exception on account of the special conditions, and still not abandon a rule that it might have to so graduate its rates so that the business could be conducted at a reasonable profit.

A. Such exceptions were repeatedly made, and were of almost daily occurrence, and the same exceptions were made for other conditions, and from my own knowledge in the City of Chicago, I know those exceptions were made daily, almost daily; we received special billing orders for billing of certain commodities almost every day.

Q. Their frequency grows out of the large volume of business and immense number of transactions that grows out of the conduct

of the business of the railroad?

A. It only illustrates and illuminates the fact that rates are not based on cost of service.

(Question read by request of plaintiff's attorney.)

2755 A. That follows, yes, sir.

Q. A railroad 25 miles long would not have so many occurrences of that sort as one 2500 miles long, would it?

A. I wouldn't think so.

Q. That rather illustrates the effect of a large volume of business and of the ramifications of business in bringing about these special instances?

A. Competition would be taken into consideration and com-

mercial conditions.

Q. You stated on your examination in chief, that the Railroad Commission of Oklahoma, I think, made complaint about a lumber rate from the Louisiana and Texas lumber zone to Oklahoma. I wish you would explain to me what that complaint was, and what was done with it?

A. The attorney general of our state, after an examination of the tariffs and the rates applicable to lumber traffic moving from Texas and Louisiana points, through the State of Oklahoma to points of destination in Kansas, Iowa and Nebraska, and other states north, came to the conclusion that there was a discrimination against Oklahoma in that lumber moving from Texas and Louisiana producing points to points distant two and three hundred miles in

Oklahoma at a rate of 23 cents per hundred pounds, and that such lumber also moved from the same points of origin to destinations in Kansas, Missouri and Nebraska, at the same rate, a distance of six to nine hundred miles, he came to the conclusion that there was

a discrimination against Oklahoma in that lumber was 2756 carried from such producing points to points in other states, where the distance was three times as great, for the same

rate of charge.

Q. What was done about it?

A. I am going to give you a history of the case. He suggested that we make a graphic illustration of this.

Q. You mean the Attorney General?

A. Yes, sir; and we prepared a map showing in colors how this rate worked.

It seems that there have been some provisions in the charter of the railroads, the Choctaw, Rock Island and Santa Fe, granted them by Congress, that the rates in Oklahoma should not be higher than the rates charged for similar traffic in Kansas and Arkansas.

He took the matter up with the railroad executive officials and the railroad executive officials suggested that they have a conference at Kansas City to see if they could not come to an agreement of some kind to equalize these rates, the Interstate rates into Oklahoma.

The Attorney General presented the matter to the railroad traffic officials and executive men; the latter seemed to be surprised, from what the Attorney General tells me, that such conditions existed. They were not familiar with it and they came to the conclusion that their traffic men were discriminating against

Oklahoma in the readjustment made of rates. That was a very graphic illustration of the fact that rates are not

made on the cost of service.

Q. What changes were made in rates—

A. The reduction of two or three cents a hundred pounds, in rates to Oklahoma points. In some instances more, I think,

Q. They were complaining that the rate being charged was too

high, were they?

A. Well, that fact and discrimination and other things, generally. They wanted to present the matter to the railroad executive officials to see if they could not make a readjustment.

Q. I suppose if a readjustment was made that would be conceding

that the rates were too high?

A. I do not know what they had in mind,

Q. What did the Attorney General and the people complaining

about it have in mind?

A. We used it to illustrate graphically in our rate cases that the rates are not made on the cost of service. We used it for that purpose in our rate cases.

Q. Complaints were not made for that purpose, were they? The purpose was to get relief, was it not?

A. We wanted the readjustment of the rates.

Q. That was not in the interest of principle, but it was to save money to your shippers, was it not?

A. I got it indelibly impressed on my mind from the

point I have stated-

Q. I am trying to get you to distinguish between impressions on

your mind and the facts in the case:

What I want to know is what was the complaint? Did your people feel they were being charged too much on grain shipped from Texas to Louisiana?

A. That was lumber. Q. Lumber, I mean.

A. Oh, yes, we felt the rate was high.

Q. The trouble about that was in the adjustment of the rates in that zone that extended from Oklahoma North into Kansas?

A. Up into Nebraska.

Q. Which you testified in your examination in chief was seven or eight hundred miles across, did you not?

A. Approximately that; whatever the distance is. Of course the

distance can be secured from the Official Guide.

Q. Now, the logic of that was that the rates under that adjustment-assuming that the zone was from five to eight hundred miles in length and they charged the same rate on the near side as on the far side from the point from which the shipment originated-is that

they were charging too much in your country and too little 2759 up on the Northern borders; was not that about the logic of it?

A. We supposed they were making rates to secure profits out of their business; that would naturally follow. The point was particularly that the complaint was, "Why are you charging twenty three cents a hundred to Omaha from Texas producing points and charging the same rates to our border at the Red River?" up to them in that way. We wanted the traffic men and executive

officials to answer the question.

Q. The point I want to call your attention to is this: if a blanket rate of weight to a zone which covers a large territory is unreasonable it is because the rate is discriminatory is it not, growing out of the fact that it would perhaps be too high on one side and too low on the other, with reference to the length of haul and interest of the shippers? Is not that the real basis of your objection on the ground of discrimination?

A. That would be a good way to put it.

Q. Now, putting it that way, so far as the question of relation between the cost of service and the amount paid for the service is concerned, it would equalize itself: if they got too much for this side of the zone and too little for the other side, the probabilities are that when you got to the middle it would be just about fair.

A. That would not follow, because there are intermediate

lines hauling that would participate in the haul.

You want to equalize the cost of service. They say, if a rate is twenty three cents at a point three hundred miles away and twenty three cents at a point one thousand miles, there must be a happy medium-

They must find a happy hunting ground?

Q. They must find a happy hunting ground?

A. That cannot follow in all cases because there are other lines participating in that haul; there may be a half dozen lines participating in the haul; and interchange of the cars at junction points; rebilling and weighing in transit; all those things must be taken into consideration, and it might follow if the haul was entirely upon one line of railroad that the case might equalize itself, but such is not always the fact, and in the great majority of instances the real conditions are that there are probably four, five or six carriers involved

Mr. Hill: Then there are discords even in the happy hunting

ground?

A. Yes, sir.

Mr. MOORE:

Q. If twenty three cents is a reasonable rate on lumber from Monroe, La., to Independence, Kans,-which I understand is an intermediate point in that lumber zone for the transportation of the freight—would the fact that two roads instead of one participate in the haul render it an unreasonable rate?

A. You mean the fact in itself that two roads participate in the

haul? Q. Yes. 2761

A. Oh, that fact alone would have nothing to do with it in

particular: that fact alone.

Q. If commercial and competitive conditions are such as to create a necessity for establishing zones of that kind you refer to, for the shipping of a product, we will say lumber, to establish a blanket rate applicable to the zone; if the railroads in order to meet that condition should prescribe a rate that was too high with reference to the cost of the service at one point than at another point in the zone-in other words, a rate which the shippers on the farther side of the zone might be satisfied with and feel they were getting a low, cheap rate, but which would dissatisfy the shippers on the other, the nearer side, and cause complaint of discrimination because the rate there was higher than it should be with reference to the cost of service; while it might result in some inequality or injustice as among the patrons of a railroad, the shippers, does it impair or destroy the principle that the rate is fixed with reference to the cost of service, taking it as a whole and in its totality and applying it to the entire territory covered by the zone, assuming it might be an injustice on one side and might be more liberal than it should be on the other?

A. On that particular commodity?

Q. Yes.

A. Yes, because it would be impossible for the traffic men 2762 or any other human being in the first place to find the cost of service on that particular commodity.

Q. That comes back to the question of whether it can be done;

what I am trying to discuss with you is whether there is an attempt to do it. Your testimony is that they do not seek to do it. I am speaking with reference to that, whether they can do it, not whether it is practicable.

A. No, I do not believe they give any consideration whatever as to the cost of service. What they want is to get the business and

produce the revenue.

Q. How can you produce revenue unless you adjust your rates

with reference to the cost involved in its production?

A. If you really haul a commodity for one half the cost of service, you are producing some revenue, you are paying part of the expense; you might be paying transportation expense and maintenance, and you might not pay the pro-rata of the interest and fixed charges; all those things enter into the matter.

Q. Speaking of paying transportation and maintenance expenses you are assuming that train would run empty if there were not a load

of lumber to take up from Louisiana?

A. I am basing my conclusions from my own knowledge and upon the testimony of prominent men—some of the most prominent railroad men in the United States—basing it upon testimony from Mr. Kruttschnitt; Mr. Lincoln, formerly with the Missouri Pacific-Iron

Mountain—I think he was the head of the Traffic Depart-2763 ment; Mr. Hill of the Great Northern, and Mr. Fish, formerly

of the Illinois Central, in their testimony given before the Senate Committee, at the time the Hepburn Bill was up; and on the testimony of many prominent railway officials in cases heard before our Commission.

The point that is always prime among those traffic men is to get the business, have a return haul—anything to get the business.

Q. So your testimony, then, as based on what you have read in the statements of others?

A. What I have read and heard, and what I have observed.

Q. Not upon any knowledge you have?

A. Yes, it is based on my own knowledge, part of it.

Q. You spoke about a return mileage on commodities: is not that a factor that would enter into the consideration of the cost of service, whether by giving a low rate and using it you could get a return haul?

A. The return haul is given a great deal of consideration.

Q. And it has a great bearing on the question as to whether a railroad company is earning more or less than the cost of service in transporting a certain article?

A. It has a bearing on the revenues as a whole, but has nothing

whatever to do with the cost of service.

Q. If a railroad could establish a rate that would enable it to haul a large volume of lumber from points in Louisiana to Eq.

St. Louis and there load the cars with coal to go back in the opposite direction, would it not be justified as a business proposition and upon consideration of all the elements that are usually considered by men in any given business transactions, and among

others, the profit that could be made out of it in making a low rate for

the purpose of bringing about a condition of that sort?

A. Naturally, an up-to-date traffic man would want to get a return haul in his empties and if he saw the tonnage in sight, if there was no restriction, he would be tempted to make a very low rate to load those empties for the return movement. At the same time, he would not give the cost of service any great consideration. It would occur to him, likely, "well, it is putting some revenue into the coffers of the Company and something will come out in the wash at the end of the year" and that is about the result?

Q. You said that getting a return loading was an inducement: Why does a railroad official make a low rate on the why is that so? business going in one direction because they can get a loading in the

opposite direction on return cars?

A. To produce revenue, to get the money.

Q. Is it not because, while the rate may be low and the profit may be very small on hauling the lumber North, when you get the return loading of coal going South, in the case I put, that taking the two together it would be a profitable business? 2765

A. A very low rate on the return movement.

Q. Whatever the rate may be-what I mean is this: if the railroads on the consideration that you speak of, namely, in order to get a return haul, will make a very low rate, is it not because taking the two directions together, the going and the coming, they can make money out of it?

A. They take it under the impression that something will come out in the wash at the end of the year and they will have some-

thing to show for their efforts.

Q. You do not mean to say, do you, that railroad men seek business on any other basis than the purpose of making money for the

Company?

A. At least they believe they are doing some good for the Com-I think they honestly believe they are, but I do not think they know anything about the cost of service, and I do not think they give that any consideration. I am sure they do not from my personal knowledge and from their testimony.

Q. Would you not think railroad earnings would be a very uncertain quantity if the cost of the service was totally lost sight of

How else can they make dividends? in fixing rates?

A. On some lines they have an index to the cost of service. instance, on the Hill and Harriman lines it is an axiom to watch the cost per ton per mile.

Some traffic men, for instance on the Pennsylvania and 2766 Wabash Railroads, they receive an average of the cost per ton per mile.

On the Pennsylvania road, in recent years, the average expense per ton per mile has been less than five mills.

Q. You say average expense?

A. Yes, it has been much less than five mills. Now, that is an average; it is an average for all; it is an average for silks and coal moving in the same train. It is an average for iron ore and for perishable goods; an average for first class and for lettered classes,

the low classes; commodity rates.

He has an average there. It might occur to him that, if I make a rate less than five mills per ton per mile I am taking it at a loss to my company. I believe that some traffic men, from the testimony they have given, use that as an index to cost, the average cost per ton per mile, and that is sort of a guide for them.

Q. What is the purpose of that? Why do they want that if they

do not care anything about the relation?

A. In the actual order of railroading the cost is worked out on

that principle, in getting an average cost per ton per mile.

Q. So it does come back, in the end, that there is in the minds, even of railroad traffic officials, a consideration for the relation between cost of service and the compensation for it; that is true, is it not?

A. Yes, they have some idea; but in the actual making of the rates they do not always take that index they have there into consideration. It occurs to them sometimes, well, here is some business offered; do we want it; had we better let it move over our rails; the

other fellow might get it, and I will take it.

Q. Now, Mr. Willmering, let me ask you right there: say one of those roads that you refer to ascertain from its statistics that the average cost per ton mile is five mills; do you believe that the officials of that railroad, having gone to the trouble to ascertain that fact, would haul a train load of the most fragile and at the same time the most valuable commodities that are known to the railroad traffic, at the same rate per ton that they would the least valuable, and the heaviest and least liable to damage or injury—commodities, I mean of that class? Do you believe that any railroad official would do that?

A. Haul a high class commodity at the same rate as a low class commodity?

Q. Yes.

A. I believe there are instances where they have done that and I believe you will find exceptions to the classifications—

Q. I am not speaking of exceptions. Every rule has an exception. Among lawyers and judges it is said that the ex-

ception proves the rule.

What railroad officials conduct their business in that way? Do you know any case in which, as a rule of practice, a car load of glass, fine Bohemian glassware of the highest value and most liable to breakage (if I am correct in that) would be hauled at the same rate that a car load of brick, stone or lumber?

A. The traffic man would be governed by traditions, by the rules that were handed down to him by his predecessor, and the classifi-

cations that were made in the beginning.

Q. Well, let us go back to the predecessor; would be have disre-

garded those conditions?

A. There is a beginning to all things, and in the beginning the commodities were classified in the Official and Western Classifications, and at the time those classifications were made and built by these railroad traffic men—the cost of railroading—in the beginning

the cost per ton per mile was very great. For instance, on the Pennsylvania road from 1864 to 1870, it was probably fifteen mills; today it is five mills.

At the time that this classification was made it may have
the average cost was high and it is handed down from time to time, and it still remains in the classification at the old rating. Of course, the traffic men then are governed by the old traditions instead of the cost of service.

Q. What is the object of the classifications made by this Western Classification Committee and other bodies engaged in that kind

of work?

A. Well, there are a great many new things manufactured that have not been classified and they get together and agree upon a classification of some new thing; and oftentimes complaints are made about erroneous classification, or high classification, and those complaints are made by the shippers in their meetings at the conferences.

Often it occurs to them, now we have to get more revenue, we might raise a few of these things to a higher class. Instead of raising the rate they raise the classification. All those things are taken

into consideration.

Q. My question was what is the object of classifying commodities

as done by those Committees.

A. The object is to prescribe rules and regulations for the government of their employees, principally, and to submit it in a way that they can—

Q. Is it not the object, just as the name implies, to classify freights that are transported by a railroad with reference to the application of the rates that are made by the companies after the classification is made?

Mr. Hall: Had you finished your answer?

A. No. Consideration is given to the casualty risk in different rommodities; some commodities may be rated higher than low grade stuff that ordinarily move. All those things are taken into consideration at the conferences. They make corrections and amendments to the classification.

(Previous question read.)

That is the prime object, to classify the quantities, the things moved.

Mr. MOORE:

Q. What are the general rules governing these classification committees in making that classification?

A. What are the prime motives governing them?

Q. No, by what rule are they governed in making that classification as between different articles of freight?

A. Oh, bulk and the casualty risk, the lading, space occupied by the commodities; these are given consideration.

Q. Why do they consider those things? Why do they give consideration to those elements?

A. I am not a mind reader. I could not tell you that. They are

governed by opinions and their own theories.

I have seen so many conferences of these men when they get together and they are about as bad as insurgents and straight Republicans in Congress. They cannot agree among themselves. They have some suggestions to make; they get all mixed up and finally the ideas are adopted.

2771

Q. You doubt the wisdom of their methods sometimes?
A. I doubt the wisdom of their theory, because I have disproved it.

Q. I believe there is a first class, is there not?

Mr. Hill: I suppose Mr. Willmering is your witness on all these

propositions?

Mr. Moore: No, I am cross-examining him on things growing out of what you brought out, whether there are any relation between the cost and the pay for the service rendered.

Mr. HILL: We did not go into classifications at all.

Mr. Moore: I know, but it has a bearing on it. Q. I was asking Mr. Willmering how many classes there are of the Western Classification Committee.

A. Five hundred classes, one to five-

Q. That is sufficient for my purpose. A. The lettered classes are from A. to E.

Q. What are the characteristics of that which is included in the first class, with reference to the cost and risk of transportation?

A. Well, the value is given consideration, and in case of loss and damage, the liability for loss and damage. It would be a hard matter to state what factors enter into the matter, because of the traditions governing and the making of exceptions.

As I stated before, these men do not agree among themselves—the traffic men—as to how some new thing should be

classified, some new invention, or some new thing manufactured. Sometimes the question of policy enters into the matter. The question of policy in this respect: here is a new industry estab-If we class that as third we might not get the business. may be they could not afford to manufacture and move the stuff.

If we classify it as fourth we might get some business from it. Things of that kind all enter into it-commercial conditions govern, competitive conditions, all those things are taken into consideration.

Q. When those exceptional conditions arise, they depart from the general rule, do they?

A. Those are not exceptional conditions. The traffic men meet

those conditions every day.

Q. Mr. Willmering, are not weight, bulk and value, primary considerations in the making of classifications and is not that obvious to any one who will take the classifications and look at them?

A. That is one of the many primary-

Q. That is obvious on the face of the classification is it not?

A. It is built on that theory to a great extent, but it does not always follow that he conditions follow the theory. Other matters are taken into consideration.

Q. Are those not elements that enter into and very largely influence the cost of handling the transportation? 2773

A. I will never believe that the cost of handling has any-

thing to do with rate making, because I never discovered it.

Q. I asked you if as a factor—not what any man's notion may be-weight, bulk and value do not affect the cost to a railroad company of transporting goods?

A. Those are numbered among some of the many factors that

enter into it.

Q. You spoke of the Pennsylvania Railroad and the Hill Railroad collecting statistics for the purpose of ascertaining the average cost per ton mile for transporting freights and getting out an index of that:

Does that index also show the average length of haul?

A. The average length of haul is sometimes worked out, but I think it is very rarely given any consideration by the traffic men;

it may be in some cases.

Q. The question I asked you is, if the index they prepared does not also show the average length of haul of all the freights that bring about the average cost of five mills, or any other average that may be ascertained.

A. The particular exhibits I have seen of the Pennsylvania Company, and the Wabash Company, in the exhibits showing cost per ton per mile, the revenue per ton per mile, and profits or

loss per ton per mile, have not shown the average haul, and where the average haul is shown in such compilation it is the average haul for all business. It is intrastate and interstate, car load and less than car load, all thrown into one, and the average is taken from that. Of course that in itself-I have heard traffic men say they have given the average haul theory some consideration, but I have never heard them explain comprehensively why they have given it any great consideration.

Q. I will ask you further if those indexes which you have in mind do not show the average haul of various commodities, not the general average of all, but the various commodities that are classified

and shown in that index.

A. No, I do not recall seeing the commodities classified and the

average haul given for classified commodities.

Q. We will leave out classified commodities: perhaps the word does not convey the correct idea. You say they classify and they get an average: do they not divide that into commodities and do they not give the average length of haul for commodities?

A. I believe coal is separated, but I think all other commodities are thrown into one whole. I believe, as I recall it now-I am speaking from memory—The Pennsylvania made a separate com-

pilation of coal.

Q. Does the index, kept by the Pennsylvania Company, contain no other of the average haul except such as is applicable to 2775 the coal?

A. I do not know now. I have not seen such a statement.

Q. Does the index show the percentage of empty cars moved

under a given expense that is moved by it?

A. The Pennsylvania Co. go into very great detail in working out statistical information and doubtless in regard to the empty movement and loaded movement, both East and West. They give that some consideration for the purpose of showing in which direction the volume of empty movement is.

Q. Is not all that done for the purpose of giving information to those who have charge of the traffic of these roads in regard to the relation between the cost and the revenue that accrues to the Com-

pany from its business?

A. It gives a mean. It is the average of all of the stuff that moves, at the end of a given period. While it gives an index as to the average cost—if you have the average cost at five mills—it is left to the conjecture of the traffic men whether the five mills covers the haul of silks and satins, or whether it is for coal. It is up to him to make a good guess and that is all he does.

Q. Do you mean to say when he gets that index he puts the

same rate on a car load of silk as on a car load of coal?

A. If he gives special attention to that index that would follow that he would do that. He exercises some judgment with regard to the traditions, the classification that has been prescribed

2776 for him in the past.

Q. Now, Mr. Willmering. I want to ask you this question, and I would like you to understand it fully before you answer:

Is it not true that the purpose of this index which you have described is to establish for the benefit and use of the traffic men, the average relation between the cost of service and the revenue that is produced by it, and do not the traffic men in their application of it to the current business which arises on their road, act with reference to the effect that the characteristics of the freight to be carried—bulk, weight, value, etc., would have in determining the proper application of that average to the particular commodity upon which they fixed the rates?

they fixed the rates?

A. They are governed by the classification of commodities in the Official or the Western, or other clasifications in common use, and, as I stated before, the only real index they attempt to use in the real art of railroading, is the average cost per ton per mile. It has been worked out on the Pennsylvania, since 1864. That gives them an average cost per ton per mile and that is the only unit that

they ever use of cost.

Q. That is a starting point in fixing the rates, is it not?

A. It ought to be of some assistance to the traffic men in making rates, because it has been constantly used for finding a unit for cost of service. It ought to be of assistance, but I do not believe the up-to-date traffic man in railroads, or traffic men that have come under my observation, and from my knowledge while in the service of the Company that any consideration is given to the real cost of service of any particular commodity.

Q. Is not a good deal of expense involved in getting together

the statistics that are embodied in that index?

A. Yes, in getting the index, the average cost per ton per mile, each individual way bill—it is compiled from each individual way bill and the real distance between point of origin and point of destination for each particular commodity on that way bill is carried out into ton miles; and the railroad companies have used and compiled those expensive statistics for years and years and it has been the unit for cost, the ton mile. I believe it is a—

Q. Why do they go to all that expense and trouble if they do not

use it after they have obtained it?

A. I have wondered about that myself, Mr. Moore. I have wondered why they did not use their own unit to find the cost in these state rate litigations. That is truly remarkable.

Q. How often does the Western Classification Committee revise its

classifications?

A. They meet very frequently. I have not kept posted on that.

2778 Q. Don't they do it every six months? A. It is likely they meet semi-annually.

Q. What is the purpose of making those revisions?

A. To classify new things that are manufactured and to lower or raise classifications and meet new conditions.

Q. The purpose is to revise and adopt the former classifications to existing conditions and circumstances at the time of the revision,

is it not?

A. Yes, to commercial conditions and to competition—competitive conditions. Oft times stuff that has been classified to second class may be reduced to fourth class and the factor of bulk and of liability, etc., that consideration, if it entered into the previous classification, is destroyed there if they reduce it from the second to the fourth. It is due to some new condition, competitive, commercial, or some question of policy.

Q. It shows they are getting away from the traditions you have

been talking about, does it not?

A. The only way they get away from traditions is to meet competitive and commercial conditions. It is not the cost of service.

Q. For what purpose do they entertain and hear complaints from shippers about classifications?

A. Ordinarily the complaints are described as discrimina-

Q. The complaints are based, are they not, upon the proposition that the classification results in too high a rate upon the commodity that the man who makes the complaint has to ship?

A. It is likely that the men will make a complaint, claiming that the classification makes a prohibitive rate and that they cannot move the stuff on that rate; that they want a lower rate classification.

Q. The rating then depends upon the classification?

A. Excepting commodity rates.

Q. And to the extent that the classification is controlled by the characteristics of the different articles that are embraced in it, such

as weight, bulk, and value, that have been mentioned, those characteristics also affect the rates that are based on that classification?

A. They are numbered among some of the many which affect

2780Q. In what cases did you make an examination of railroad witnesses referred to in the former part of your testi-

mony?

A. In a number of cases before the Corporation Commission of Oklahoma, and in cases remanded by the Supreme Court of Oklahoma for the further taking of testimony before the Corporation Commission of Oklahoma.

Q. Have you been assisting in conducting trials of that character?

A. Yes, sir.

Q. Are you taking an active part in the litigation now in progress between the Oklahoma Corporation Commission and the railroads, in regard to the rates in that state?

A. Lending all the assistance possible, yes, sir.

Q. In looking over the paper you handed me in response to my request, where you prepared a formula showing your method of dividing operating expenses between state and interstate, I notice the first item is "Maintenance of way":

A. That is the first general account, yes, sir,

Q. That you divide on the basis of car miles, straight?

A. Yes, sir, as between local and through trains.

Q. Do you divide that expense as between passenger and freight?

A. Between passenger and freight?

Q. Is that expense divided by the railroads as between passenger and freight? A. After the expense is divided between passenger and

2781 freight, after the actual freight expense has been ascertained.

Q. How are they divided between passenger and freight?

A. On the basis of the revenue train miles, it should be, except Account No. 17 "Docks and Wharves", which would be assigned to freight.

Q. Why do you change the basis of division when you come to

divide between local and through freight trains?

A. In the hire of equipment the car mile is used and is a recog-Armour Company and refrigerators are paid on the nized basis. basis of car miles. It is an established basis and it would be more equitable for the reason that one day it might happen that a local freight train would have the greater number of cars, and the next day it might be that the through freight train would have the greater number of cars. It is a better average than the train mile. It is recognized in railroad accounting as a-

Q. When did you ever know a division of "maintenance of way" expense to be divided between local and through trains in railroad

accounting?

A. There would be no necessity for such a division until this litigation occurred between states. There has been no necessity for it. The railroad accounting officials have not given any attention, study or thought to that division, until these matters came up very recently.

Q. Has there been any system of division practiced by the railroads in their method of keeping accounts, as between

local and through freight trains?

A. They are just as deep in the mud as we are in the mire, because they are of recent date, as between state and interstate. But the basis I have suggested here, in my judgment, is a fair basis—an equitable and a just basis, for the reason that the expense of "Maintenance of way" is common to all classes and characters of traffic. It is not caused by any particular class of traffic, and the expense or outgo for "Maintenance of way" is caused by the acts of Providence, acts of God, whether a wash-out, deterioration of ties owing to weather conditions. In all truth and in all logic, the car mile ought to be accepted for the basis of division between local and through.

Q. If that is true, why should it not also be used as a basis of

division between passenger and freight trains?

A. Well, we have made a concession to the railroad companies in that respect and have accepted the theory arvanced by the railroad

officials themselves.

They were first to advance train mileage for a division between passenger and freight business, and where the charges could not actually be located, in a great many of the instances, between passenger and freight, might be assigned directly to passenger and freight traffic accounts.

One of the principal reasons why we have accepted the revenue train mileage basis for a division between freight

and passenger, where the expenses cannot be located, is just a concession to the majority of the accounting officials. It is accepting the railroad's own theory.

Q. Who made that concession? You say "we". Whom do you

mean by "we"?

A. I mean we who represent the states in this litigation, especially in Oklahoma.

Q. What is your view about what would be the best basis as between passenger and freight?

A. As between passenger and freight? For the "Maintenance of way"?

Q. Yes?

A. I believe the car mile basis would give us the basis where the degree of accuracy would be greater than the degree of inaccuracy.

Q. Now, Mr. Willmering, in making that statement, don't you go counter to the concensus of opinion and practice, as put in practice and continued by all railroad accounting officials?

A. I would not say all—I believe if it was shown up to the railroad men—railroad accounting officials that now recognize the revenue train mileage basis in so far as "Maintenances of way" is concerned,

I believe they would agree that the car mile would be the

2784 more equitable basis, everything considered.

Q. What I am intending to ask is this: what is and has been the practice among railroad accounting officials?

A. The practice has only been applied in the division of freight and passenger expenses; the revenue train mileage, with the exception of on account "Docks and Wharves"—all the charges made to that account is caused by freight traffic.

Q. What part of the expense of "Maintenance of Way" is assign-

able to the freight and what part to the passenger traffic?

A. It is common to both. It is not assignable to either one. except on an arbitrary basis.

Q. I understand that, but you stated some parts would be as-

signable-

A. One particular account, "Docks & Wharves". The charges and outgo from that particular account are assignable to the freight. not assignable to passenger, because it is not caused by the passenger traffic—with the exception of that one account under "Maintenance of Way & Equipment".

I don't suppose that the Iron Mountain or any of the roads connected with this case have any "Dock and wharf" territory. I am speaking with reference to the Interstate Commerce classification of

"Maintenance of way expense".

Q. What proportion of the expense of "Maintenance of Way"; what part of it is directly attributable to the wear and tear produced

by the operation of trains on the tracks, and what part is

2785 attributable to other causes?

A. The part that is attributable to wear and tear of cars or trains would be infinitesimal compared with the entire outgo, but in the maintance of way and structures the elements and the acts of Providence would cause the greater part of the outgo.

Q. Are station buildings included in that term "structures" as

used in that connection?

A. Oh, yes.

Q. Fences, telegraph poles, and so on?

A. Yes, sir.

Q. Why should that expense be divided on the basis of the cars used?

A. The road is built for the purpose of moving cars over the rails.

That is primarily the purpose.

Q. I can understand why the damage produced by the wear and tear to the rails by the wheels should be made a direct charge and apportioned that way, but I have observed a number of indirect charges, that you have divided them with reference to the earnings. you say?

A. I have made no apportionment of any expense there on the

basis of earnings.

Q. I do not say that you did. I mean the state accurtants in this case.

A. They merely made a test and followed the theories advanced by the railroad company's experts, and applied figures to the railroad's theories.

Q. How do you know that to be the case?

2786 A. They have attempted to make a test of the theories of Mr. McPherson and Mr. Doddridge and apply it to conditions existing in Arkansas. They followed their ideas to a great extent and made a test to bring out facts and figures resulting from the theories advanced by Mr. McPherson and Mr. Doddridge. That is the way it appears to me and it occurs to me they made a painstaking effort to put a test to the theories advanced by the railroad experts.

Q. I observe that you make no allowance on account of local

service in your division, you divide it straight:

In Exhibit K, filed by Mr. Wharton, he adds 50% to local engine

mileage for station switching.

A. Yes, that is an arbitrary allowance and it is favorable to the interstate business. It is following the theory advanced by the railroad experts and it is unfair to the state.

Q. Why?

A. Because it is both, foolishness. The idea of wanting to charge additional maintenance for switching expense to local freight trains: Anyone that has been in the railroad service and observed these things daily would know that it is humbug.

Q. You think there is no more station switching on local than

on through?

A. Certainly; but the local trains are doing switching for the through trains in reality, under existing conditions—

Q. What do you mean?

A. A through train sets out—a carload of interstate freight. That through train don't stop there to spot that car at an industry track, or spot it for unloading or loading a the team rack or the industry located at that station; but the way freight train, which is the workshop of a railroad, it goes along, follows that through train and performs that switching service—

Q. You think an extra charge ought to be made the other way?
A. I believe there ought to be some plan devised where the time employed by the local train crew to that particular character of switching—which ought to be ascertained and could be, for the future; for the past there has been no record kept of it.

Q. In your view it should be charged to the through instead

of the local train?

A. The through train should be charged in reality for whatever

service was performed by the work train.

It is a misnomer, calling a way freight train a local train and trying to confine it exclusively to freight traffic, which, by inference, a great many railroad experts have tried to either mislead the lay man; it is unfair on the part of the railroad experts by inference to assign all this extra cost to a local freight train, and by

inference allow someone to believe—who is not familiar with the real conditions—that this local train performs exclusively service for state business. It is a wrong inference for those railroad

service for state business. It is a wrong inference for those railroad experts and it is unfair for them to assume anything of that kind.

Q. There has been something said in this case about what they

Q. There has been something said in this case about what they called the "peddling" business, in connection with the distribution of state freights, and it has been treated as an extra source of expense

which is not attributable to the interstate business? Is there any additional switching connected with that in any way?

A. The peddling business? You mean less-than-carload business? Q. Yes, and I mean the peddling distribution of state freights:

Is there any extra switching involved in that?

A. Yes; it costs more to handle less-than-carload business per ton per mile, than it does to handle carload business.

Q. Where would you assign that extra expense?

A. If the greater number of ton miles was found to be interstate, I would charge it to the interstate business or through trains or whatever class of trains carried it.

If the greater amount of less-than-carload miles was state business,

of course it should carry the burden of that extra expense.

Q. Let us suppose that we have a local train starting from Little Rock, going to run 100 miles: it carries some interstate freight that was switched on to it from the interstate train

that came into the station where this shipment originated: It has a number of cars of state freight for distribution along the line; that stuff was brought in Little Rock and taken out in small packages and is to be distributed. It has to stop at all the stations to peddle it out: that is what they mean by "peddling trains".

A. Making delivery of less-than-carload.

Q. Let us asume that the greater part of the delay in the distribution of those freights results from the state freight—while you have interstate freight on there, that has to be delivered at a few—two or three stations; the other has to be distributed among a dozen stations:

Take a case like that and state where the extra expense growing out of switching and other service incident to the distribution or

peddling of that, should be assigned?

A. How many carloads of state freight have you?

Q. I don't know.

A. I want to know the ratio of that train. Your assumption ought to be based upon some example that would be——

Q. If you wish to illustrate it you can do so.

A. I would not like to answer that question unless you would

indicate what is in your train.

Q. I would not undertake to indicate that except that it has state and interstate. The state distributed locally and the interstate among two or three of the larger stations.

2790 I am not asking you for amounts, I am asking you where you would apply the extra expense growing out of the service

incident to the peddling out of that state freight?

A. I would have to have the tons and ton miles in your train of each character of traffic. The question could not be answered with any degree of accuracy by any one unless they know what is in your train.

Q. You cannot answer it unless I give you the contents of the

train?

A. If you want to know that, I want the character of the tonnage.

Q. Mr. Wharton has assumed that each engine is the equivalent to two and one-half car miles, in Exhibit K for the purpose of division of "Maintenance of way and structure" expense: You do not make that concession, do you?

A. No, he is too liberal to you people. Q. What do you think about that?

A. He increases that local engine 50% because he has added 50% here to a local car mile, and a corresponding increase is made for the engine miles. He is extremely liberal in that allowance, in favoring the interstate business.

Q. Do you think that any allowance at all should be made on that

account?

A. Not for maintenance of way, no, sir.

Q. Do you know on what basis that allowance is made by 2791 Mr. Wharton?

A. I suppose he has accepted some of the theories of the

railroad experts in this case.

Q. Do you assume that because you do not know of any reason why he should adopt that equivalent of two and one-half times?

A. It is absolutely absurd to me. I don't know of any reason

for it.

Q. How about the 50%-

A. It is favoring the interstate business without any reason. He is doubtless following out some theory advanced by some of your experts.

Q. If it is proper to make an addition to the local engine mileage

on account of station switching, is 50% a proper amount?

A. I would not make any allowance whatever, because the local train is the workshop for the railroad, as I stated before, and performs switching services for these through trains.

Q. Now, going to "Maintenance of Equipment":

You have divided the expense of maintaining locomotives in two parts, yard and road. You divide the yard expense on the basis of yard mileage and the road expense on the road engine mileage. You make no allowance on account of possible extra maintenance due to yard service in your division, do you, as was done by the State?

A. Not as between through and local trains, no, sir. 2792

Q. Do your views differ about the propriety of that from that of the state accountants?

A. Yes, sir, they have again been liberal with you by following the theories advanced by Mr. McPherson.

Q. Why do you think Mr. Wharton was wrong in making that allowance? A. Because it is not real. It is an arbitrary allowance that has

no ruling of law. Q. Before I leave that, what is this yard engine mileage, what do

you include in that item?

A. Mileage made by the yard engines.

Q. How do you ascertain that?

A. From the reports rendered by those in charge of yard engines,

whatever method might be in practice by the railroad companies; that is ascertainable.

Q. Is the yard engine mileage divided between local and through

service?

A. On the basis of the actual cars handled for each class of trains. That can be ascertained by check made of the wheelage reports and other reports made by the yard.

Q. How do you ascertain that?

A. By the car numbers of each train when they come into the terminal and go out.

Q. I thought that was on the basis of yard engine mileage: that would be car mileage if it was divided on cars—

2793 A. Well, it is ascertainable and should be divided on the

mileage made.

Q. How would you ascertain that, Mr. Willmering? I want you to explain that. If it is ascertainable I want to know how it could be ascertained.

A. I have not made an investigation of the method of keeping this mileage with reference to the Iron Mountain System, but I have every reason to believe that it is ascertainable.

Q. How do switching engines handle cars in switching them? Do they do it just indiscriminately, take up a number of cars, some

belonging to one service and some to another?

A. The local train comes into the division terminal where they employ yard engines and yard crews. The road engine is detached and sent to the roundhouse and the yard force with the yard engine, under instructions from the yard master, breaks that train up and distributes it, or makes up other trains from the cars in that train, and vice versa, with reference to the through train. The cars in each class of trains can be identified from the car numbers and a record can be kept.

Q. Does anybody in the railroad yard office keep a record of the yard engine mileage performed in the yard work? Do you know

of any such instance in practice by any particular railroad?

A. That is a matter that I have not personally investigated 2794 and the records submitted in the case should be accepted.

Q. I want you to give me your opinion as an accountant, as to whether it is possible to keep an account of the yard mileage of engines engaged in that service? I mean mileage of yard engines engaged in yard service?

A. I am not prepared right now to give you an answer in detail, but it is a matter that I have not investigated so far as the Iron

Mountain or the Cotton Belt accounts are concerned.

Q. My question is broad and applies to any railroad whether it is possible to do it?

Is it not impossible to do it on account of the nature of the service?

A. I am not prepared to give you the answer that your question deserves at this time.

Q. I will ask you further, if in point of fact, the mileage of yard engines is not, on account of the impracticability of keeping it any

other way, measured by time, and if, under the regulations and rules of the Interstate Commerce Commission, it is not kept at the rate of six miles an hour and accounted for on that basis?

A. I indicated that I wanted time to investigate this proposition

before I gave you a technical answer.

Q. Now, let us see how you are going to divide your road engine mileage: you do that straight, do you?

A. Yes, sir, on the mileage of the road engines of each

2795 class of trains.

Q. Mr. Wharton added 50% to the mileage of road locomotives in local service to provide for extra switching mileage, and then added 50% to the switching mileage of the local train engines to provide for extra maintenance due to switching service, making 75% additional to the local engine mileage: you do not make that allowance, do you?

A. No, sir, it is a very liberal allowance and it is favorable to the interstate business, and does not exist in reality. There is no reason

for it.

Q. You think then that Mr. Wharton fell into error in doing that?

A. No, I think that Mr. Wharton was painstaking in his effort to follow the theory advanced by your experts in this case and apply the real figures to their theories and using their theories of maximum cost.

Q. You divide the expense of maintenance of freight cars on

straight car miles, too?

A. Yes, sir, straight car mileage basis.

Q. Did you take into consideration the element of repair due to stopping and starting of trains at way stations, and due to the extra terminal handling of cars?

A. Not as between local and through.

Q. Why not?

A. Because it is absurd. One day the same car might be in a local and the next day in a through train.

Q. You do not think Mr. A. M. Wellington would state

an absurd thing?

A. I don't think he took into consideration the distinction, or made a distinction between local and through trains, to the extent that it should be applicable to a division of expense between state and interstate business.

Q. You think Mr. Wharton made a mistake in applying the statement quoted from Mr. Wellington on that subject in the way

he did?

2796

A. I think he wanted to be fair and impartial and that he wanted to follow the theories advanced by your experts in this case, and he wanted to apply those theories to real conditions and make a test. I think that is what he has accomplished. He used the maximum expense in all cases.

Q. I did not ask you if you thought Mr. Wharton wanted to be fair or liberal: I asked you if you thought he fell into a mistake

when he applied the proposition asserted by Mr. Wellington in his work that 21.5% repair expense of freight cars should be added—

A. For what reason?

Q. He set it apart as representing—as an extra applicable to cars in the local service, and if you will turn over and look on the next page you will see what he says, and in connection with it he has also set apart 13.5% for the repair expense: he does that on the authority of Mr. Wellington.

2797 A. He did not define it as a distinction between local and

through trains. He is talking about-

Q. This is what he says:

"Mr. A. M. Wellington, (Page 203) says that the stopping and starting at way stations is the cause of approximately 21.5% of repair expenses of freight cars, and that the terminal handling is the cause of approximately 13.5% of the repair expenses. Taking these elements into consideration the maintenance expenses may be divided as follows:"

Then he added:

"Stopping and starting 21.5%. Terminal handling 13.5%:"

I want to know if you think Mr. Wharton was correct in following Mr. Wellington's authority in making the division he did there?

A. Mr. Wellington made no distinction between local and through trains. The stops he refers to would doubtless occur in the through as well as in the local train. Through trains stop for train orders; they stop for crossings, and while the damage to the cars might be occasioned by these frequent stops, they occur in local as well as in through trains, and there should be no distinction between local and through trains.

Q. Now, we will turn over on the other side of it and see what

Mr. Wharton says further about it. He says:

"Assuming that each local train makes a stop say each five miles and each through train a stop say each 20 miles, the local service should be charged with four times as much as the through service,

in proportion to car mileage, for the expenses due to stop-2798 ping and starting. Assuming also that each car in local

service receives two terminal handlings (including handling at local stations) to each terminal handling of a car in through service, the local service should be charged with two times as much as the through service, in proportion to car mileage, for the expenses due to terminal handlings."

What do you say as to that?

A. That is rather a violent assumption. I think it is too much assumption of theory and it will not meet the conditions that really exist.

Q. Is it your idea that the whole basis and ground work of that

division made by Mr. Wharton is wrong?

A. No, the basis is all right, but the extra arbitrary in making excessive charge to local trains and favoring through is wrong. The arbitrary added for additional cost.

Q. Do you understand that why he made that was in order to

make these divisions apply to the per cents Mr. Wellington said

should apply to certain parts of the service?

A. My understanding is that he made that to apply these theories advanced by Mr. McPherson and Mr. Doddridge, and also in accordance with the theory advanced by Mr. Wellington.

Q. Why do you assume that the car mileage is a proper method of dividing the expense of maintenance of freight cars between local

and through trains?

A. The car is the unit for the repairs and the repair is made to the car, and the greater the number of car miles made-it is the best unit that I know of.

Q. Is the damage to cars in service affected by the weight

and extent of the loading?

A. In my judgment, the weather and elements have a great deal to do with the damage to cars. That is the reason and cause for

repairs.

2799

The same as with a house that you build; there is a certain amount of depreciation and deterioration from the weather and the elements. The car is standing out on the side track. It is not under shelter like the engines are part of the time, and a greater part of the damage in my judgment to freight cars is from other causes than that of moving over the rails. A part of the damage is caused by overloading sometimes but that is the exception. The principal part of the damage, in my judgment, is caused by the weather and the elements and owing to not being sheltered like road engines are when they are out of service.

Q. What effect does the frequent stopping and starting of cars

have upon them?

A. That has some effect.

Q. Does it not have a considerable effect? A. To a part of the equipment of the car, yes.

Q. Mr. Wilmering, would not the damage to the car be influenced to a considerable extent by the extent of its loading and of the handling in the way of switching it?

A. Oh, yes, that would have some effect, but as between local and through trains there would be no distinction because the car may be used for through or interstate service today and local service tomorrow. Those things must be con-

sidered.

Q. When you divide this on a basis of car miles you disregard all differences?

A. We use the car mile as a unit. Today that car might be in interstate service and tomorrow in local service, as I stated before.

Those things must be taken into consideration.

Q. If a large part of, or at least to the extent that the damage to cars does not depend directly on the miles run and depends on elements and such things as painting and renewals and depreciations of that sort which is caused by the elements—on what ground can you say that that kind of expense would be charged on a car mile basis?

A. We have got to use some arbitrary basis and in railroading the

cost account has not been brought down to the fine point that it has in industrial accounting. It might follow that some day a better basis could be determined, that the repairs could be identified with each individual car, and that the car itself could be identified as between train service. In view of the fact that an accounting has not been made or planned that would produce results of that kind, I don't know of any better basis than the car mile.

Q. But it is an arbitrary assumption, is it not?

A. We must use some arbitrary basis because it is a new thing among railroad accountants themselves, this division of interstate and state expenses. There has been no occasion for

it until these recent litigations have occurred. Many railroad accounting officials have told me that personally they had not given it a thought until recent years, this division between state and interstate business, and for that reason they had not established any methods or any system for real cost accounting. And further, I understand you have a pooling arrangement with the Iron Mountain and that your expenses are not identified with the car outgoes, and that is the best basis in your case that I know of.

Q. Do you believe that railroad accountants ever will be able to

ascertain the expense attributable to each individual car?

A. That they ever will be able to do it?

Q. Yes.

A. A great many things have been accomplished in accounting in recent years. I don't think it is impossible to do that, no, sir. I think that each individual car can have an account established and all expenses due to that car can be located to an extent where the degree of accuracy will be greater than the degree of inaccuracy.

Q. I believe that you testified that you could ascertain it by ascer-

taining the repairs to-

A. Oh, no; I testified that repairs had been ascertained to each individual road locomotive on the M. K. & T. road.

Q. Have you any idea how many cars of the Iron Mountain system, how many engines are repaired annually?

A. No, the records would be the best evidence of whatever it is.

Q. I understand. We will take engines, for instance: there are at least 3/4 million engine repairs annually on the Iron Mountain. I mean distinct and separate repairs. Many of them, of course, made upon the same engines, but separate and distinct repairs.

Would it not require an immense amount of bookkeeping to

identify and charge those to the individual engine repairs?

A. It would require a good deal of bookkeeping. The M. K. & T. are doing that today. Mr. See a spent nearly a day's time with me showing me the detail of how he accomplished and found out the actual expense of repairing each engine, and an account is kept with each engine for repairs and renewals and the depreciation is charged for each engine.

Q. Didn't he tell you they were trying to keep the same kind of a

record for car repairs?

A. He indicated that eventually the railroad accounting officials would be compelled to do that, owing to this state of litigation, and

he had great hopes that they would finally accomplish something in that line.

Q. I suppose we might safely assume that there are 20 cars to an engine, probably, in service; maybe more or maybe less,

but I just say that to illustrate:

Mr. Johnson tells me that there were repairs made of 557,210 freight cars on the Iron Mountain in the year 1909.

Some of them were foreign cars and some were domestic cars.

I want to ask you if you know or could you suggest any system by which each individual car could be charged separately with the expense that pertained to it, and then how would you divide that between the cars that belong to the company and the foreign cars that belong to other railroads?

A. That is a very difficult matter and it would be difficult to accomplish, and for that reason, in the division of repairs to freight cars and renewals, we have used the arbitrary basis of car miles; but I believe that such results will be finally obtained sometime in the

future.

Q. What does "Supervision and General" under the head of "Maintenance of equipment" embrace?

A. All other expenses incidental to "Maintenance of Epuipment." Q. You say you divided that on the basis of direct Maintenance of Equipment: Do you mean on the basis of division you have just

been speaking of? A. On the basis of the located expense; on the basis of the direct

in that general account, maintenance of equipment.

Q. What are the direct expenses, those you have been 2804

speaking of, damage to engines and cars-

A. Repairs and renewals to locomotives, yard, (a) and (b) as indicated in the exhibit, and all other expenses incidental to maintenance of equipment?

Q. How do you divide "Traffic Expenses"?

A. Traffic Expenses?

Q. Yes, you stated here on the basis of the total direct for actual expenses accrued within the State.

A. Yes, sir, I will explain that to you.

I would give no consideration whatever to any expense that accrued for traffic expense outside of the state. All those expenses that accrued any where outside of the state should all be charged to interstate traffic and no consideration should be given that for state business. But on the expense that actually accrued within the boundaries of the state, for traffic expenses, I would divide those on the basis of the total direct operating expenses.

Q. What do you mean by "expenses incurred within the boundaries of the state" and by "expenses incurred outside of the state"?

A. Those outside agencies located, for instance, we will take the Iron Mountain Missouri Pacific located in the City of Mexico, San Francisco, New York. Chicago-those offices there are for the purposes of soliciting business from those points to points within this

state, for example, for soliciting intermediate hauls across the continent. All of their time and attention is necessarily 2805 devoted to interstate traffic.

Q. You mean in the sense that where the agency is located—if it is located in Chicago or New York, you would charge all of it to the interstate business?

A. Yes, sir.

Q. And if it is located in Arkansas you divide it between state and interstate?

A .- Yes. sir.

Q. What would you do with the salaries of the Freight Traffic Manager and his office force?

A. I would charge that to interstate business.

- Q. What would you do with the service that foreign agents rendered, who made an arrangement with a theatre troupe to go from place to place in the state on local state trips between points within the state
- A. Your local would have to be business coming properly within the jurisdiction of your commercial agent or district passenger agent located in the state. If the man outside of the state interfered with his jurisdiction it is an exceptional case.

Q. What would you do with that?

A. That is such an exceptional case that the favor might be returned at sometime by your agent within the state. It is interfering with his jurisdiction down here.

Q. Suppose a traffic manager was to tell you that a great deal of competitive business from common points wholly

local business, beginning and terminating in the state, was influenced to go to his road by the efforts of a foreign agency that happened to be located at headquarters of various concerns that had plants and industries in the state; suppose you had such a case as that, what would you do?

A. You would have to show me such a case as that. I don't believe they exist. If they did the traffic officials in this state would return the compliment sometime by soliciting business up in his

territory.

Q. You put it on a reciprocity basis, do you?

A. That is what it amounts to in reality. The questions that you have submitted do not really exist. I don't believe those conditions exist.

Q. The paper handed to me by you states that you divide station expense account on a basis of the tons handled, the length of haul considered. I wish you would explain what you mean by that?

A. On all intrastate shipments I would charge for two terminals. for the terminal at the point of origin and the terminal at the point of destination.

For example, if we had 100 thousand tons of state freight and 200 thousand tons of interstate and trans-state freight handled, for

the two terminals I would double the intrastate tons, making it 200 thousand; then the ratio would be 50% for each, providing the interstate haul was 100 miles or under.

If the interstate average haul was over 100 miles, I would then

charge the interstate tons for an extra division terminal.

If the interstate haul averaged over 200 miles, I would charge it with another handling at the division terminal,

I found from actual experience, and I can testify from my own knowledge, that the interstate, both carload and less than carload, is actually handled at division terminals, and this theory that has been advanced in this case and applied by Mr. Doddridge—this bridge theory—that this trans-state business going over a state as

though it were on a bridge, does not in reality exist.

There are too many cripples side tracked or ditched in these supposed solid through trains and I have not given that any consideration at all, because it don't exist. I know from my own knowledge that cars of lumber handled from points in Louisiana and points on the Iron Mountain in Louisiana—I recall some moving to points in Oklahoma that have been delayed in transit from 60 to 90 days and have been weighed four or five times in transit; the way-bill itself showed that this bridge theory is an absurdity. It is nonsense and it don't exist in reality. It occurs to me Mr. Doddridge and

2808 McPherson tried to apply the ideal theories in railroading for the most economic management possible, but they have

not accomplished their ideals and never will, I don't think.

So for that reason and owing to the fact that these interstate cars both less than carload and carload are handled at the division terminals if the length of haul is greater than 100 miles—that also double the tons handled in order to ascertain the ratio.

Q. Have you read the testimony of Mr. F. E. Ward in this case?

A. No. I have not read his testimony.

Q. Have you read the testimony of Mr. Sewall or Mr. Whitenton?
A. I believe I read Mr. Whitenton's affidavit in the application—

Q. No, I mean his testimony?

A. No, I have not.

Q. According to that basis you have just stated, you would charge all interstate freight, including trans-state freight, one terminal and then an additional terminal handling for every 100 miles?

A. Yes, considering the 100 miles as an average of the distance of

division points.

Q. So you would charge all the freight that you cover under that interstate and trans-state with those terminal charges, would

2809 You?

A. Yes, assuming the division terminals were 100 miles apart.

Q. Mr. Willmering, I have heard some testimony in this case about the average length of haul; has that anything to do with

these terminal expenses?

A. Well, it is a well known action in railroading that the longer the haul the less charge per ton per mile, in short hauls the rate per ton per mile is always greater for both state and interstate, than it is for long hauls, and particularly so for state business, because on short hauls the standard local distance rates ordinarily apply, and on interstate business the business is largely competitive and the rate of charge is low in comparison to the ton per mile.

Q. What do you include in that item of "Station service"?

A. I include account 68, "Station employés," Account 72, "Sta-

tion supplies and expenses," and Account 100, "Telegraph and Telephone operation."

Q. That includes all of the stations as far as the station agent, cashiers, stenographers, clerks, bill clerks, platform men, truckmen, warehouse——

A. Warehouse men, freight loaders and unloaders, tally men,

delivery men-

Q. You charge that to trans-state freight every one hundred miles in passing through the state of Arkansas?

A. Yes, sir.

Q. Do you know what the percent of trans-state tonnage 2810 on the Iron Mountain road is?

A. No, I don't.

Q. The exhibits in this case show that the trans-state tonnage of the Iron Mountain is 51 per cent, and on the St. Louis Southwestern it is 64 per cent, the ton miles on each line:

Would there not be a pretty considerable-

A. The ton miles would not be the index. It is the tons handled. The tons handled, I see only represent 33.61 for trans-state—

Q. You say that would not be a proper index, a proper criterion? A. Made on the basis of the tons handled instead of the ton miles.

Q. On the Iron Mountain railroad the tons handled are 33% of the total and on the St. Louis Southwestern 44% of the total: To that executi in those proportions, that tonnage would be chargeable to these expenses every hundred miles passed over in going through the state of Arkansas?

A. A percentage or the ratio of tons handled as to character. Whether trans-state, local, interstate or state, would not appeal to my mind in any way whatever, because it is actually handled at these division terminals irrespective of character or class.

Q. Mr. Willmering, a carload of goods starts from St. Louis to go to Alexandria, Louisiana: that car passes through 2811 Hoxie, the division point in the state of Arkansas: are there

any charges collected on it at that station?

A. No, the expense of collecting the charges would be infinitesimal compared with the entire expense attendant at stations.

Q. What duty does the station agent at Hoxie discharge in regard to that carload?

A. He has general supervision of the yard and ordinarily has the direction of the yard master—

Q. What does the cashier do?

A. He accounts for the revenue.

Q. I mean about that particular car of freight: what has he got to do with that?

A. He might have a great deal to do with it, depending on circumstances and conditions which happen in railroading every day. It might be the agent has assigned to him the duty of making damage reports or advising the proper officials with regard to a car with a hot box, or a car in a damaged condition; or it may be the car would be transferred at that division point.

Q. What if it is not in a damaged condition?

A. It would be incidental to station expenses, that is all.

Q. What are the duties of the bill clerks and the delivery man,

what duties would they discharge?

A. Well, those positions are all incidental to the station service. Of course, the cashier might devote all of his time and attention to the passenger business in selling tickets and not any part of his time to handling freight. He might have an advising clerk to give his attention to the freight accounting. Different conditions exist at different stations.

Q. I called your attention to those details, not so much because they are of any importance, but I wanted to ask you in connection with those details to which I have called your attention, if a very large proportion of the service that is rendered covered by this heading of "Station expenses" is not absolutely inapplicable to trans-state freight in its passage through the state of Arkansas?

A. Oh, no; I don't recognize that distinction or any distinction between the service performed at terminals as between any character

of freight.

Q. I am not talking about terminals, but division points.

A. Or division points, then. I have in mind the division point I am acquainted with.

Q. And you make no distinction?

A. I have given that much careful thought and consideration and have come to that conclusion; I cannot draw any distinction nor any theory. If you apply the existing conditions to the theories advanced you find the theories are destroyed.

Q. Do you propose to divide yard and terminal expenses on the basis of cars straight without any allowance of any

sort?

A. Yes, sir, because it is obvious that it does not in reality cost any more to switch a car for a local than for a through train.

Q. What is "yard terminal expense", that is, what does it include in connection with the operation of industrial tracks, tracks to elevators and things of that sort?

A. It is incidental to the yard service, the placing of cars at

industry tracks.

Q. Do you undertake to say that an equal amount of service is rendered to the cars containing trans-state shipments and those containing local shipments?

A. Oh, yes; they switch the trans-state cars around in the same bunch of cars that they switch the other cars, and they often break

up blockades on the sidings.

Trans-state cars are not exempt from switching at all. They get just as much shifting and switching as the other cars. The theory is nice, but the conditions differ from the theory.

Q. Let us see, now, to illustrate:

There are five carloads of freight originating at Little Rock; one of them may be at the Dickinson brick plant, an industry there: maybe another one is at a lumber yard: maybe another one is at a cotton compress: there are three of those cars that are hauled in

to those different plants and industries at which they had to be loaded, empty. That involves a movement. Then there 2814

was a haul back from the point at which they were loaded, to the yard in which they were hooked on to the train: That is true, whether an interstate shipment originating there, or a state shipment originating there; and it is also true of shipments coming in and destined to Little Rock, both interstate and state business: Do those services pertain to trans-state shipments going through the state of Arkansas?

A. It is not applicable to any distinction that can be 2815 drawn between through and local trains; there could not be any distinction drawn there, because if switch engines performed that service at division terminals, or at other places where the engine is maintained for the through train, it equalizes that.

Q. Are not trains made up of cars that carry these different kinds

of freight, trans-state, interstate and state?

A. That is theoretical; it is the exception when that is true; sometimes they carry a through car of cattle through the state; it is all theory, all bosh.

Q. You assume to divide the fuel and locomotive expense on the basis of the actual expenditure in the two branches of service?

A. Yes, sir, in so far as the actual expenditures for each class of engines for local and through engines and the other accounts incidental to that, fuel and locomotive expense is divided on the basis of locomotive expense for that particular item?

Q. Is that possible?

A. The account can be kept for each engine, and it can be ascertained; on some roads, the firemen signs a receipt for coal delivered to his engine; I think an accounting can be made for that.

Q. Those expenses, I suppose, run irregularly, and vary on different roads, or do they or not-fuel and locomotive expenses?

A. Yes, I have heard it said by some of the railroad men, trainmen, that one fireman could get more service out of a certain amount of coal than another; there are a great many things 2816 that enter into it; it depends on the grades, and on the condition of the roadbed a good deal. There is no distinction

between local and through trains.

Q. Do you think you could ascertain the relative consumption of coal on one road by statistics you gather from the operation of

locomotives on another road at another time and place?

A. No, but if you would get the total locomotive miles and divide that-you would divide the actual expense for fuel by the total locomotive miles, you would get an average, and with the average, you would strike a happy medium there, and I think it would be possible as a system for the railroad.

Q. That is not the way you propose to divide it?

A. No, sir, I would want to go into actualities as much as possible on these things; for some future accounting we have to take past accounting into consideration, and these things you can plan for the future, but your plans won't work for the past.

Q. Pass over these other details; you stated the conclusion that

you would finally apportion all train cost that we have been talking about on the basis of ton miles?

A. Yes, the established unit used by railroads for years past.

Q. It is the ton mile theory?

A. No, sir, it is a fact; it is the unit that is used in the real art of railroading.

Q. It is the ton mile basis of division?

A. It is the unit used by railroads, used for years and years. It has been used by the Pennsylvania and Wabash for many 2817

Q. How long has it been used by the Wabash system?

A. I think I know of statistics compiled in '74 by the Wabash; I know of statistics followed by the Pennsylvania back in 1867, and some by the Houston & Texas Central way back in 1860.

Q. Dividing the expenses for conducting state and interestate

traffic-

A. That is a different thing; that is a new thing; everybody is a "tyro" in that, the railroad and state's accountants are all beginners

Q. Is that the only unit of division that is used by railroad ac-

countants?

A. Yes, except one that was invented by some shrewd railroad lawyer for these cases,—the revenue basis.

Q. What are you speaking of now?
A. This theory that it does not cost any more to earn a dollar by switching freight, than it does to earn a dollar running a passenger train, or freight train, or carrying a mail car; that is the foundation for it; it is absurd.

Q. I thought you said under the system of apportioning expenses between state and interstate business, that it had not been attempted by railroads until recently, wasn't that what you stated a moment

ago?

A. No uniform system has been established.

Q. What I want to get at is this, for what purpose has the ton mile unit been used in making divisions which you referred

to in your answer awhile ago.

A. In this proposition here—we tried to explain that to you; this exhibit submitted by Mr. Wharton, I believe that he really endeavored, and by the pains-taking methods he employed, and by the rigid way in which he went after the facts, that he attempted and did apply the theories that were advanced by numerous railroad experts with reference to the difference in cost of operation of local and through freight trains, and that he, after he located on their theories the maximum additional cost for local trains, then the final apportionment has been made upon the long established ton mile unit, after the extra cost has been ascertained.

Q. Isn't there some other unit such as train miles, and car miles

used by the railroads for the purpose of making divisions?

A. Thos- divisions are incidental to a particular class of expense. with the locomotive mile and with the coach mile; those are classes of expense that are incidental to the equipment.

Q. Now, aren't those two units, car mile and train mile, used right in conjunction with ton mile by the railroads, all the time in practical accounting?

A. Not for cost, not for division of expenses.

Q. Isn't there three units, and according to railroad practice, aren't those units used concurrently and directly for the purpose of bringing about the divisions that are made by railroad ac-

2819 countants in the different branches of the accounting service?

A. They are used in the division of expenses as indicated in my exhibit here, and are used in the division of expenses for the reason that they are incidental to a certain part of the expense, certain primary accounts,—incidental to certain primary accounts, but here is the proposition you are selling tons carried one mile, while the rates are based upon the ton; you are selling transportation and the unit is your ton; what we want to find out is what does it cost you to carry that ton.

Q. The railroads are not selling tons?

A. You are selling ton miles.

Q. What the railroad is selling is that space in its car which is occupied by the tonnage it carries, and that service which is necessary to move that tonnage, that is what the railroad is selling, isn't it?

A. The unit for measuring it, and the unit for selling it, is the

ton mile.

Q. You have already testified that the railroad divides between passenger and freight cost of maintenance of way on the revenue train mile basis?

A. Yes, that is the basis that has been commonly accepted by

accounting officials; we have accepted their basis so far.

Q. There is one instance in which the ton mile hasn't been used; don't you know that running right through it, these various unites are used concurrently for different purposes?

2820 Q. (con'd.) And that none of them has ever been used by a railroad in keeping its accounts for the purpose of dividing its expenses of the traffic, between state and interstate?

A. I don't quite get the drift of that question.

(Question read.)

A. We are using these road miles, engine and yard miles for separation of expense between local and through trains, in order to ascertain the actual application of your own rules to conditions as they exist, or to establish rules that have been used by accounting officials to real conditions that existed, in order to find what is this extra cost, and whether it leads up to the maximum resulting from the preconceived notions of these railroad experts. After that has been located according to their theories, then the final unit is the railroad company's known unit, long established, and used by them,—the ton mile unit, and that finally determines the cost per ton per mile.

Q. In order to clear the matter up,—we seem to be talking at cross purposes—I will get you to explain what you mean by speak-

ing of ton mile as the railroad's own basis; I want to understand

just what your meaning is?

A. It is the standard of measure or unit for freight cost, in the real art of railroading, that has been used for many years. The results are accomplished only after great expense and compilation from waybills, and it is an expensive undertaking, and if

there was no real use for it, why would the railroads expend this money for working it out? And if it is not a good unit,

this money for working it out? And if it is not a good unit, why has it not been discarded? Great railroad men, very eminent railroad men, instruct their operating officials to watch the cost per ton per mile, and the results of operation over divisions, under the superintendents or direction of division superintendents and general superintendents, is watched from the ton mile unit by the executive officials. Why is it used?

Q. You referred in your last answer, I suppose, to the data used in the preparation of that index you spoke of this morning, for the

purpose of ascertaining the cost of moving tonnage?

A. Yes, sir.

Q. Isn't it a fact that freight ton miles, freight car miles, and train miles, are the three units used in preparing and getting up that exhibit, and in connection with the total cost of moving ton-

nage?

A. Yes, the train mile is used to measure the efficiency of train service, and is frequently referred to by operating officials; the ton mile is used to determine the real cost of moving the tonnage in such trains, and from my own knowledge and from my own experience, I know, as I stated before, operating officials are cautioned to watch its cost per ton per mile; it is known; it is the standard for measuring for cost, but the traffic man who sometimes thinks

the operating man is trying to step on his corns, with refer-2822 ence to rate making, and he absolutely ignores this cost per ton per mile, and they have so testified in answer to questions which I submitted to them and that is the reason I state that rates are not made on the cost of service; they have an opportunity to get the average cost, but they don't make use of the index they

have got, for the purpose of rate making.

Q. Is it the operating man who directs the method by which this

cost is to be ascertained?

A. No, the executive officials really direct, and the accounting officials work it out for them, and this cost per ton per mile is constantly before the operating man, the efficiency of his division and the efficiency of his superintendents is judged by that cost as a rule. He has got the old man up at the home office jacking him up if he doesn't get the tonnage over the road,—ton miles—and when it comes to this rate litigation, from what I could extract from these accounting officials, they don't believe in the revenue basis themselves,—very eminent men—but these railroad lawyers, they ask them what is the simplest method, and they say "this is, the revenue basis is simple and not complicated", and he says "which is the best for us"—"the revenue basis shows the best result", and he says "We will use it, that is what we want."

Q. How did you get that information; have you ever been present at any conference between railroad officials and their attorneys?

2823 A. I extracted that from Mr. Nay on the witness stand. and Mr. Douglas; I can truthfully draw that inference from the replies they made.

Q. I will ask you now to tell me what testimony there is of Mr.

Nay in which you extracted that,—what case was that?

A. It was a case down in Guthrie, Okla., in the rate cases remanded by the Supreme Court of our state down in Guthrie, sometime in November, 1908.

Q. Last November? A. Yes, sir; It was the inference I got from his testimony, and in private conversations I have gotten a good many things that I

wouldn't want to detail here.

Q. The details are confidential but the results are not. I want to ask you the question; you haven't answered that question I asked you awhile ago, if in making up this index which you have described so elaborately, freight train miles, freight car mileage and ton miles are not all used as factors?

A. They are used as factors in arriving at the final results; they are long established and recognized factors in railroad accounting.

Redirect examination.

By Mr. HILL:

Q. You referred to some statements that the Commission of Oklahoma wanted the railroads to make, a tentative plan of dividing the revenues and expenses between state and interstate; that was worked up early in the Railroad Commission's work, and you stated, as I understood you, that that was not agreed to by the railroad departments; do you mean that they did not agree among themselves, or did not agree with your commission?

A. Principally, they did not agree among themselves; they scrapped among themselves to beat the band in our conference; one would indicate that the other was crazy and the other would say

"back at you."

Q. It wasn't a failure to agree with the auditors on one side, and

the Commission on the other?

A. No, we made a number of concessions to them in the matter. Q. Was that plan substantially what you have submitted here,-A. The tentative plan that we offered then? Q. Yes. the plan here, you think that would best work out?

A. No, the plan we started with was a plan approved by Commissioner Colquitt of Texas, but the same bases are used, car miles and the yard engine mileage, and the same numbers are involved, but there are arbitraries which we have since discovered were too elaborate and others that were too rigid, and ran favorable to the state and others unfavorable to the state, and I have come to the conclusion, by working out the figures, that have been submitted since and that

reports, that the basis is not as refined as the one we have at 2825 present to submit, and we finally permitted the railroad officials to make any division of the operating expenses they

might themselves elect, and they have yet failed to elect a basis for separation between state and interstate. The reports issued by the Rock Island, indicate that there is no basis known by which such a division can be made, and recently they have complied with the order to some extent, by using the formula offered in the Arkansas rate cases, but they qualified their oath on the return, which destroys the effect of the basis.

Q. You mean the reports that have been submitted by the roads that dismissed their suits, and are testing the court tariff for a year,

are those the formal reports you are referring to?

A. The basis used in these injunction cases, this revenue basis.

Q. They are making it on that now are they? A. Some of the roads are, yes.

Q. Have you made that formula an exhibit to your testimony yet?

A. No. sir.

Q. I wish you would file this plan as Exhibit "C" to your deposition?

A. I will do so.

Q. Do you think that this Exhibit "C" is nearer a true separation of state and interstate business than the tentative plan that you worked out, and which Commissioner Colquitt had worked out in Texas?

2826 A. Yes, sir.

Q. I don't know that I quite understand your position on the local and through service, and I will state what I gather, and ask you if it is right and if not, wherein it is wrong; that you don't think it right to charge these additional sums which have been called arbitraries, like 50% local train for extra switching, and others, because you regard the local train and the through train as both doing state and interstate traffic, one helping the other one, and that the difference, if any, in the expense of local over the through, should not be recorded in the final division between state and interstate?

A. That is the position I have taken, yes, sir, that the services are largely reciprocal; there is a sort of reciprocity, and at division points where they employ yard engine service, it is true that the yard engine performs the switching for the local trains as well as the through trains, but all the switching that is performed for through trains as a rule, with very few exceptions,—as a rule all switching performed for through trains, interstate business, is completed by local way trains,

at way stations.

Q. You don't question, as I understand you, that some of these would be correct if it were right to make the charge at all,-say Wellington's division based on more frequent stops for the local train as

over the through-but your objection goes to making any 2827 allowance of that kind, when you go to consider a final division between state and interstate?

A. I object to making any such allowance; it is unfair to state

traffic, and extremely favorable to interstate, and the result is, you have extra profits on the interstate business; a lot of the through

trains work is finally performed by local way trains.

Q. It is in evidence here that the Iron Mountain pools its car repairs with the entire Missouri Pacific System, on car mileage basis, and the percentage to Arkansas is ascertained on the car mileage basis, and so charged up in the exhibits filed by the railroad companies in this case; accepting that as a fact, could any other unit than car miles be taken to apportion the cost between local and through trains?

A. It is the commonly adopted unit and basis, and I think the

basis that I submitted there is very fair.

Q. I understand that irrespective of its being a fair basis, but I say where they have reached the item of expense under that head between Arkansas and the other states that are in the pooling arrangement, you could not give any other basis upon which to separate that, could you?

A. No, the same basis ought to follow to the end.

Recross examination.

By Mr. Moore:

Q. Who prepared this formula, "Exhibit C?"

2828 A. I did personally myself, without any advice of counsel. Q. When was it prepared?

A. I had it in mind in my direct testimony, and prepared it last evening.

Q. Since you came here to St. Louis?

A. Yes; however, I would have prepared it before if the business of the Corporation Commission of Oklahoma had not taken all my time and attention.

Q. Is there any difference between that formula and the one pre-

pared by Commissioner Colquitt of Texas?

A. Yes, sir.

Q. What is the difference?

A. There is a great deal of difference; in the first place, in maintenance of way and structures, the expenses between state and interstate is divided on the basis of the loaded car miles; I have used all car miles; I have never made a comparison to find what real differences there were; in fact, when I prepared that exhibit, I did not use or make any reference whatever to Mr. Colquitt's plan, but if you desire it, I will introduce Mr. Colquitt's exhibit and a comparison can be made.

Q. I will ask you to file it as exhibit "W."

Mr. HILL: I will object to that; it is very long; I have a copy, and I have gone through it; I have no objecting to going through and taking the bases and comparing them, but I object to its introduction.

A. I will file it as Exhibit "W," subject to the ruling of the master.

2829 R. D. PARKER, being first duly sworn and examined, deposed as follows:

Direct examination.

By Mr. HILL:

Q. State your name, age, residence and occupation?

A. I am 32 years old. I am a civil engineer by profession; I am at present employed as expert engineer for the Railroad Commission of Texas.

Q. How long have you been employed by the Railroad Commis-

sion of Texas in this capacity?

A. Since January, 1909, about a year and a half. Q. You say you are a civil engineer by profession?
A. Yes, sir.
Q. Were you educated as an engineer?
A. Yes, sir.

Q. In what institution?

A. Our own state University,—Texas,

Q. You took a university course in engineering.

A. Yes, sir.

Q. After you finished your engineering course, what business did

you then follow?

A. I went into the government service for about six months; after that, I went into railroad location and construction work and remained there about—in that and kindred work—for about four years. For the past eight years, exclusive of the time that I have been with

the State Railroad Commission. I have been employed in the operating department of the Houston & Texas Central 2830

Railroad and H. E. & W. T. and I. & G. N. R. R. service; my service with the I. & G. N. was principally in connection with construction matters. My duties in the operating department were confined to maintenance of way work. I had charge, when I quit the railroad service, of about six hundred miles of line; the direction of all bridge and building and track work, and the handling of all construction work, the work pertaining to that department was all under my jurisdiction.

Q. Did your work and duties bring you into contact with the operating conditions upon the road on which you were engineer?

A. Yes, sir, constantly, particularly for the last four years of my

Q. What was your service the last four years that brought you

particularly in contact with the operating officials?

A. In directing the maintenance of way forces, it was necessary for me to be practically two-thirds of my time on the road; sometimes more than that. That movement over the road was on passenger trains, freight trains, in and about yards and terminals, and in fact, every part of the operating department nearly.

Q. Your duties then carried you into observation of the operating

system of the road over which you were working?

A. Yes, sir.

Q. Since you have been an official of the Texas Railroad

2831 Commission, what have your duties been?

A. The examination and valuation of railroad properties within the state, for the purpose of making valuations as a guide to that commission in the limitation of stocks and bonds, and examination of facilities for railroad operation and railroad service where complaints were made, or where the commission desired to make any investigation involving particular conditions or physical conditions on railroads, and in addition to that, I have in charge,—that is, I represent the Commission in their jurisdiction over interlock and signals, which carries with it necessarily some information as to the method in which trains are operated.

Q. Have you made a study, both from books and actual experience and observation, of operating conditions upon railroads?

A. The study, since I have been out of college, has been largely a study of actual conditions that have come under my observation.

Q. Have you examined the exhibits in this case as filed by the state?

A. Yes, sir.

Q. I want to ask you,-I presume you have had no accounting

experience?

A. No, sir, except so far as it pertained to maintenance of way work; when I was actually engaged in railroad work and in the study, I would naturally give it time, being interested and desirous of obtaining information that would be valuable to me in the future.

Q. Are you familiar with the basis or units on which expenses are apportioned to maintenance of way and maintenance of equipment and things of that kind?

A. I think I understand the units that have been used in these

exhibit

Q. Has your work made you familiar with the use of these units that you find applied in these exhibits? I am referring to "car miles" and "engine miles"?

A. Yes, from an operating standpoint, I think I am.

Q. The first application of any of these units is under the head of maintenance of way and structures, where there is a division made between local and through service on the basis of the total engine and car miles of each class, during a given period. I will ask your opinion of that division of this expenses between those two classes of service?

A. To my mind, it is about as representative a unit as could be

applied; that is a unit that is representative of the service.

Q. There has been some question raised as to the amount of expense under that heading of maintenance of way and structures which would be occasioned by actual running of trains, and that which would be occasioned by the elements; have you formed an opinion from your service in the maintenance of way work as to the percentage of that?

A. I should say that there is no definite mathematical division

that you could make between it, but my opinion would be that possibly 90% of the expense of maintenance of way are not directly due to the wear and tear of track and structures.

Q. Assuming that to be the case, what is your reason for using the car mile as the unit to measure that division of expense between the

two classes of trains?

A. It is representative of the service; the only classes of trains that we have operated over the roads are through and local trains; the road is built to carry freight; in so far as the freight business is concerned, and that is the means of carrying it, or the use that is made of it.

Q. You understand these accounts are relating to the freight de-

partment?

A. Yes, sir,

Q. You think then the representation that represents the use made of it, is the proper unit?

A. Yes, sir.

Q. In making this division, and in arriving at the number of engine and car miles, there has been added 50% to the engine mileage of local trains for station switching, has your attention ever been called to the switching that is done by locals at stations?

A. Yes, sir, local trains do practically all the switching.

Q. I wish you would state your opinion as to what percentage should be due for that switching service?

A. I think the mileage shown here for switching service for local trains is certainly a generous one. There is one test that occurs to my mind in connection with that, and that is the relative

amount of main line and sidetrack mileage. I believe in the case of the Iron Mountain, the statistics show that there is about one-third of the side-track mileage, as compared to the total amount of main line mileage, and if the local train in service used every one of the side-tracks one time, naturally it would only be about 33\frac{1}{3}\%, and then another thing, a great deal of side-track mileage is used by through trains as well as local trains.

Q. The next item in this case to which I desire to call your attention, is that the accountanats have assumed that each engine mile

was equivalent to 21/2 car miles.

A. I presume that is calculated on a wheelage basis; a 12 wheel engine and 8 wheel tender would be 20 wheels compared to an 8 wheel car.

Q. Is that about the proportion used in this Southwest country?

A. You might say that is the maximum, except in the new type of locomotives, Mallet compound, which are practically two locomotives connected with one boiler and one firebox; that is called articulated; the locomotive is hinged in the middle.

Q. Where are they used?

A. In mountain divisions; I believe the Santa Fe has some in use and some of the western lines; I think the first one was exhibited here at the World's Fair.

Q. You are not referring to that exceptional class?

A. No, sir, there are none in the Southwestern country that I know of.

Q. The next item of maintenance of equipment; the expense under that head is divided between yards and road locomotives, on the basis of locomotive mileage of each class during a given period; what do you say to using that basis to divide that expense of locomotives under maintenance of equipment?

A. It occurs to me that that is a little bit high.

Q. I am asking you first as to the general proposition, not about the percentage; the expenses are divided between yard, local and through, on the basis of the locomotive mileage of each class; I want to know if that is a proper basis of dividing that class of expense?

A. It occurs to my mind that that is.

Q. That 50% mileage made by locomotives to provide for possible extra maintenance due to the yard service—

A. That is the charge they have added on account of extra main-

tenance and not extra mileage.

Q. And then they added 50% to the mileage of road locomotives in road service to provide for extra switching, and then have added 50% to the mileage of road locomotives in local service to provide for the possible extra switching mileage, and again have added 50% to the switching mileage of the local train engines thus ascertained to provide for the possible extra switching, making 75% added to the engine mileage; that is what I want your opinion on, the arbitraries or added percentage, added to cover that phase of the case?

A. As I said awhile ago, I think the arbitraries are ex-2836 cessive; they go a little bit ahead in the exhibits; the ac-

countants who have prepared this report have applied an arbitrary of 13½% for repairs or maintenance of freight cars, due to terminal handling, which means switching practically, and I don't see why an extra amount should be added to locomotive repairs for maintenance of switching service more than for the cars; one reason for that is that the locomotive is heavier, a stronger machine, and does not suffer by the impact in switching as much as the cars, which are lighter structures.

Q. Do you think that the 131/2% under the head of freight cars

is a proper allowance?

A. I don't know; I believe I would raise that some, to possibly 16 to 20%.

Q. Take that other percent, taken on authority of Mr. Wellington, 211/2% for the expense of stopping and starting the freight car.

A. The same criticism of the application of that arbitrary to the local for switching would apply; I mean, the same arbitrary applied to yard locomotives would applied to the locals doing the work.

Q. How much do you think that should be?

A. I don't see any difference in the two-the local and the

switch engine, except in favor of the local engine.

Q. Those latter arbitraries were added upon the authority of Mr. Wellington's work. I will ask you if you are familiar with Mr. Wellington's work?

A. Yes, sir, we used it as a text book in my studies in engineering department at college.

Q. How is it regarded among engineers, and men studying

the questions that are treated in his work?

A. It is taken as authority.

Q. Some question has been raised as to the date of Wellington and the date of this table from which this was taken; I believe it has been put back as far as 1887, the date when it was made; have you given any consideration to the effect of time upon these items?

A. Yes, sir, some.

Q. Have you any authority that would show any reasons or show

any changes in the conditions?

A. I have before me the report of American Railway Engineers & Maintenance of Way Association, volume 5, of 1904, and on page 695 is a statement similar to Mr. Wellington's with some slight changes, which was compiled by Mr. G. B. Berry, now chief engineer of the Rock Island System.

Q. Read into the record so much of the statement as is pertinent

here?

A. He contributes in table 2 on the page heretofore given, the statement showing the distribution of cost of locomotive repairs on the Union Pacific Railroad, and he applies to freight and work engines 7.35% of the damage due to getting up steam and terminal work, and to switch engines 12.474%.

Q. 12.47 where 13.05 is allowed in Wellington?

A. These figures I have just given apply to locomotive repairs; the figures quoted here from Mr. Wellington are applicable 2838 only to freight cars; the figures given by Wellington for

damage due to stopping and starting at way stations is approximately 21.5%, and Mr. Berry's table, the repairs to cars due to the same service is 20%, and the repairs due to terminal handling in Mr. Wellington's quotation is 13½%, and Mr. Berry's is 16%.

Q. Makes a total of 36, where Wellington's total makes a total

of 35?

A. Yes, sir.

Q. What is your opinion of those Wellington figures and Berry

figures, from your observation?

A. I think the switching damage is probably correct, but I don't think the comparison between local and through trains, in regard to damage due to stopping and starting is correct for the reason that the stops made by the local trains, exclusive of way station stops that the local trains have to make, that the through trains don't have to make, are about the same. Those stops are stopping for water, railroad crossings, stops to meet trains, stops to take water, etc.

water, etc.

Q. You recognize that these different items for which arbitraries have been allowed, are items which in the physical handling of the local train are causes of extra expense on that train over the

through train.

A. So far as maintenance of way is concerned.

Q. This is maintenance of equipment we are on now?

2839 A. Yes, as far as switch service is concerned. I think cars get more damaged in switching than in any other way; next to that is deterioration due to weather conditions.

Q. Weather conditions would apply to both classes of trains?

A. Yes, sir.

Q. The point I am getting at is this, these various elements set forth here in maintenance of equipment for which arbitraries have been added, I will ask you if they are elements of extra cost of physical handling of one train over the other?

A. Yes, in so far as local trains do the switching and the through

trains do not.

Q. And the more frequent starting and stopping, if that does exist?

 A. Yes, sir.
 Q. Then these arbitraries that have been put into these exhibits, in your judgment, and on the authorities you have read, sufficiently cover those elements of extra cost?

A. Yes, sir.

Q. According to the views you and these authorities express, they have more than covered it?

A. Yes, sir, from my observation, I think that is true.

Q. I am not discussing at all with you the question of whether it is right to charge those up between state and interstate, but merely between the physical handling of the two classes of trains?

2840 A. I understand.

Q. Is all this switching done by local trains for use of its own traffic?

A. No, sir, the local train carries through traffic as well. You

mean as to state and interstate?

Q. No, I am disregarding that; that is a fact the traffic carried on local trains, or does it do any switching for traffic carried on through trains?

A. Yes, the through train frequently stops at a station in order to set out a car or pick one up, one that has been placed first out, as they call it, for the through train to come along and pick it up.

Q. Is that the common practice? A. Yes, sir.

Q. And who would put it out for the through train, and who

would take it away?

A. The through trains would set it out on the track to be taken up by the local train and set to the industry or set to the house track, taken to the stock pen to be loaded and do the various other station switching service.

Q. Has your observation as to the handling of through and local trains from division terminals been such that you could explain just how that service is handled in the division terminals?

A. Both classes of trains move into terminals and are broken up

and classified and switched alike.

Q. Now, turn to yard and terminal expense, that is at page 4, these are divided between local and through business on basis of cars handled at terminals as explained under maintenance of yard locomotives. I will ask you your opinion of that division?

A. I think it is logical and about as true a measure of the services

as you could get.

Q. Now, the station expenses are not divided between local and through, but are divided between intrastate and interstate business, in proportion to the volume of traffic that each class handled at the station, that is "A" under "Transportation"; what do you think of that as a proper basis?

A. Well, in some respects the local conditions in the state in question would control that. From my observation, the basis is a good one. The division between intrastate and interstate-its hand-

ling is really the question.

Q. What I was particularly asking about, I wanted to call your attention to, was whether the division of that upon the amount of tons handled would be a proper division?

A. Yes, sir, I think it would, the relative amount of each busi-

ness would reflect it.

Q. It would of course by local condition that would govern; the number of state or interstate or intrastate would govern?

A. Yes, sir.

Q. After the cost was ascertained, in the ways set forth in this exhibit, between the local and the through trains, then in the seventh sub-division of it, you will find that it is divided between state and interstate on the volume of traffic of each, 2842 carried on the ton mile basis; I would ask you your opinion

of that basis for that purpose? A. It is as good a division as I know of; it is one that has been accepted and used for a number of years in the railroad service, in

railroad accounting.

Q. You know that from your study of operating reports and your study of these railroad accounts, I presume?

A. Yes, sir. Q. These various bases that are used here and applied to each of these items to which you have been testifying, I believe you stated at the outset were recognized bases by the railroads for various divisions which they made. I will ask you if in your own opinion, the expense between state and interstate could be properly divided on the basis of the revenue derived from each class of that business, state and interstate, and fairly reflect the cost of operation, as you have observed the cost of operation?

A. No, I have no conception of a division on the revenue basis, as reflecting in any manner, the way in which the service accrued; in the first place, the idea of expense carries with it the cost idea, and the basis would be on the cost not on the profit that accrues from the business; and any manufacturing establishment predicates the price of their commodity on the cost basis plus a reasonable

profit; the railroad company has transportation to sell; while I don't mean to say that the cost of service controls the 2843 making of rates, there is a great many items that enter into

Q. After observing operating conditions then, you would not regard the revenue basis as a fair basis?

A. No, sir, of course I am not an accountant.

Q. I am asking you your view point, as you have observed and studied operation, whether those operating expenses which you are familiar with, and which you have studied, and incurred I suppose, can be properly reflected in a division between state and interstate by the revenues?

A. I don't believe they can, no, sir.

R. D. Parker, examination being resumed, deposed as 2844 follows:

Cross-examination.

By Mr. MOORE:

Q. Mr. Parker, you have stated that you had charge of about six hundred miles of railroad at the time you quit the railroad service, that you were employed in construction work and maintenance of way work; I suppose by that, you mean do you not, that you were engaged in such construction and re-construction as was necessary to keep the tracks in proper condition,—changes and additions?

A. Yes, sir.

Q. You were engaged in the line of your profession as civil engi-

neer, in that work, were you not?

A. Yes, sir, a good many practical details that came up, it is true did not require engineering knowledge, handling men, etc.

Q. Your work was along the line of your profession? A. Yes, sir.

Q. I suppose your studies have been along that line, have they not, for the purpose of perfecting yourself in your profession?

A. Yes, sir. Q. You were asked if your work brought you in contact 2845 with operating conditions on the road. In what way did it

bring you in contact with operating conditions?

The construction work I had reference to in that case particularly was betterments of the existing line and improvements; naturally, those improvements were made upon all parts of it where trains were operated, and the other business of the road carried on.

Q. In that way, while you were engaged in your work as civil engineer in supervising such work and changes as were made, you mean you had the opportunity the presence gave you of observation?

A. Yes, sir.

Q. You stated that your studies since you left college have been largely of actual conditions that came under your observation. Has that also been with reference and from the standpoint of your profession as civil engineer?

A. My work has been in that profession, yes, sir, but at the same time I have made an effort to study operating conditions for my

information, and in order to broaden myself.

Q. You did that, I imagine, in a very general sort of way?

A. I did it in every way possible.

Q. What I mean is, you did not actually undertake to participate

in directing operating movements?

A. No, sir, my jurisdiction did not extent to the movement of trains, except in my work, work trains and trains handling

2846

material were under my jurisdiction.

Q. What you observed was what a man whose opportunities of observation was, from being at times where the work was going on, what his opportunity was to see,-that is what you mean I suppose?

A. Yes, sir.

Q. What was your title while you were in charge of that maintenance of way work?

A. Resident engineer.

Q. And your duties were such as those usually discharged by a

resident engineer?

A. Not necessarily. The Southern Pacific organization is different to most of the roads, and I understand, different to the Gould Roads. The engineers are put in charge of track and bridges and building; they have jurisdiction over it and issue orders direct to the men; they control the labor, handling of material and direction of the work.

Q. That organization is not the same as on the Iron Mountain lines?

A. No, sir.

Q. There is a difference?

A. Yes, sir; my understanding is, that on the Gould lines, a resident engineer is only engaged in construction work, that is, new lines, branch lines, spur tracks to industries, and making surveys, that they do not actually handle the work and are not directly in

charge of it, that the superintendent is the operating official that handles the track department, directs the roadmaster 2847 and bridge superintendents. In our case, the bridge super-

intendents and roadmasters are directed by the resident engineer, and the resident engineer in turn reports to the engineer of mainte-

tenance of way, and the superintendent too.

Q. If your impressions as to the duties of the engineering department on the Iron Mountain lines is correct, your understanding of the difference between their duties and the duties that were discharged by you, is that in addition to laying out and directing the construction or re-construction work, and you also had charge in a larger extent than they do on the Gould lines or Iron Mountain road, of the performance of the work, execution of the work, of the plans prepared by the engineering department?

A. My understanding is,-at least with the Gould lines in Texas,—the engineers make the plans and the operating department carry them out, and they act in an advisory capacity in a measure, as far as the location of line is concerned, grades and curvatures,

etc.

Q. Is there a large volume of trans-state movement of traffic in the State of Texas over the railroads?

A. There is over the Southern Pacific lines; the movement of traffic from New Orleans and Galveston to the west, California points and intermediate points, between El Paso and California points, and there is a movement on the I. & G. N. to Mexico points; as I say, the greater part of the traffic was destined to Texas; it is right on the border of the United States-

Q. Are you familiar with the manner in which the two railroads engaged in this litigation handle their trans-state traffic in passing

through the State of Arkansas?

A. No, sir, I can't say that from personal knowledge. conditions, however, in the southwestern group do not vary a great deal.

Q. At the same time, it depends to some extent on the manner of handling that may be adopted by the railroad that is under consideration, as to the incidents of handling a particular class of track?

A. In so far as the method is concerned, I don't think there would be a great deal of difference. Operating men from Texas go up into the other states, and the operating men from Arkansas and the Territory go into Texas. They all have established methods by which railroads are operated and they do not vary materially.

Q. It is in evidence in this case for instance, that the Iron Mountain has established a yard at a place called Dupois, I believe, east of the Mississippi River opposite St. Louis, in which they classify and make up trains, classify cars and make up trains carrying transstate traffic to Texas and Louisiana points, and that those trains are so arranged with reference to the handling of them en route, that

those cars which are necessary to be detached in passing through the state can be handled with one movement; for instance, grouping them together in moving the train, if

such an arrangement as that does exist, wouldn't it have the effect of diminishing the extent of terminal service applicable to that

class of traffic?

A. Naturally, if the solid train moves through the state as a solid train, where there is nothing but an exchange of crews, engines and cabooses, that would be true, but I imagine there would be a very

limited amount of that kind of business.

Q. I do not assume that it goes through as a solid train. My question assumes the contrary. Assuming that it is not a solid train made of cars carrying trans-state freight, but that it is a train in which there are cars to be set out in the State of Arkansas, but those cars are so grouped that they can all be set out on one movement.

A. It depends on the traffic in the train.

Q. Wouldn't that simplify and diminish the cost of terminal

A. Somewhat; it depends on the relative proportion of the two kinds of business.

Q. In what manner do you understand that station expenses are divided?

A. In this exhibit here, it was divided up on the number of tons?

Q. You mean the total number of tons moved for the six 2850 months in question here?

A. The total number of tons handled.

Q. The total number of tons handled by the Iron Mountain Railroad in the State of Arkansas during the six months' period in question here, is that your understanding?

A. Yes, sir.

Q. If that is correct, and if the record in this case shows that 33% of that tonnage is business that passes across the state of Arkansas, would there not be a difference in the amount of terminal service rendered to that third of the traffic?

A. Yes, it would probably have some effect on it; you are mixing

in your question, terminal handling and station handling.

Q. I used the wrong term, I meant station service, instead of ter-

minal service.

A. There might be some effect, but I think the trans-state service would have the same expense attached to it in station work, in keeping the passing record of cars, checking cars in yards and telegraph service; the telegraph operators engaged in the movement of this trans-state traffic which you speak of, would have duties with reference to that, as well as this intrastate traffic. In some cases, the icing of cars, as I understand is done by station men, though in larger places, the different refrigerator transfer lines handle it through their own agents.

2851 Q. Would it in your judgment, be anything like as great as the service rendered to the local state freights and the interstate freight that originates or terminates in the State of Ar-

kansas?

A. I would say the proportion would be in favor of the intrastate business, that is, as compared with what you call the trans-state business.

Q. Wouldn't you think then in that case, that the application of the division,—I mean on the basis of the number of tons handled in the state,—that class of expense would be unjust to the local traffic?

A. I don't know that it would; I don't know any nearer basis

that you can establish.

Q. Do you know whether a great deal of that station expense is chargeable to and grows out of the incidents of the handling of L. C. L. freight?

A. Yes, sir, but usually the proportion of less than carload freight is very small; that is, the proportion as compared to the total

volume of business.

- Q. That is true, but when you take the ratio that there is between that and carload business,—state business,—it is pretty hard, isn't it?
 - A. Yes, these agencies are maintained for business as a whole.
 Q. That is all very true, but I want to call your attention to the
- fact while L. C. L. business is not a large proportion of the business of a railroad, it is a considerable proportion of the state traffic, and it is not an unimportant proportion of the interstate business which originates or terminates in the state,

while it is an infinitesimal proportion of the trans-state business; I wish to call your attention to these three conditions that exist and ask you if in view of those conditions, it would be a proper basis of division of station expense?

Mr. Hill: I think it would be only fair to state the percentages of L. C. L. interstate and L. C. L. state.

Mr. Moore: I have no objection.

Mr. Hill: Here is your exhibit #26, he can state them from that.

Mr. Moore: Just let him answer the question as I put it; we do not accept that.

A. I think you have exaggerated the proportion of less than carload traffic in your state and interstate business, in the way the question is framed; it is a very small proportion I think in both; the carload movement would be in excess.

Q. Regardless of the proportions of carloads and less than carload traffic interstate and trans-state business, isn't the expense of state less than carload traffic much larger per ton mile than the trans-state less than carload, so far as the State of Arkansas is con-

cerned?

2853 A. I don't know what the local conditions are in the State of Arkansas.

Q. Isn't there a difference between the two classes of traffic which exists of necessity and would apply everywhere, which would establish the proposition that a very much larger proportion of the expense is applicable to state L. C. L. than to trans-state L. C. L.

A. I think it would; the trans-state L. C. L. shipments move through the state in solid cars, probably they are not broken at stations, except perhaps at some points where they make transfers of the cars into different cars; some particular cause might come up in the operation of trains that it would be best to handle it that way, where it could be handled or transferred cheaply, but that less than carload movement which passes entirely through the state, of course, would not be as much affected as the less than carload movement within the state, or as between the State of Arkansas and the other states, or interstate business.

Q. Leaving out of the question for the present the proportions, but assuming that there is a class of traffic, carload and less than carload, to whatever extent those differences may exist, isn't it true that the plan adopted by the state of dividing station expenses according to the number of tone handled in the state is unfair as between the trans-state traffic and the other classes of traffic?

A. I don't think that it is; they have assumed a propor-2854 tion here of one to two, I think; they assume that each intrastate ton is handled twice and each interstate ton once. I

don't think that is unfair; it would represent conditions, I think,—that is in Texas it would.

Q. That assumption of the two state handlings of state business and one of interstate is not made as a concession because a greater or less service is rendered to one than the other, but because there is in fact two station handlings of every ton of state freight and one of every ton of interstate freight, so that it does not change conditions at all; that is not an allowance in favor of any one class of traffic?

Mr. Hill: Are you testifying to those facts, Mr. Moore?

Mr. Moore: I think they are in evidence here.

Mr. HILL: I think the very opposite is shown by the testimony.

Q. If that is correct, that there is in fact two station handlings of state freight to one handling of interstate freight, does the allowance which is made there and which you have just called attention to, do more than place each one on the basis it belongs on, as far as station expense goes?

A. Yes, sir, I think so.

Q. And it still leaves the effect upon any different condition that might exist in relation to trans-state movements of freight 2855 the same as we have been discussing, doesn't it?

A. I don't think it would affect trans-state movements a

great deal.

Q. Judge Hill called your attention to the fact that in the formula contained in Exhibit K, after the cost was ascertained in the way set forth in that exhibit, between local and through trains, then the seventh sub-division of the exhibit divides it between the state and interstate on the volume of traffic of each on the ton mile basis. He asked your opinion of the correctness of that basis to which you answered that it was a good division, and one that had been accepted and used for a number of years in railroad service and railroad accounting.

A. My understanding is it is used in railroad accounting; I do not qualify as an expert accountant, and my judgment and opinion of these bases is largely upon what it conveys to my mind in point

of equity.

Q. I am calling your attention to it now to give you an opportunity to explain what you do mean; you do not mean to state that there has been any system of accounting in practice by railroad operators, by which the cost of railroad operation as between state and interstate traffic has been divided on the ton mileage basis?

A. They have not settled that question yet, as I understand

2856 it.

Q. I am asking about railroad practice and the manner in which division- are made by railroad accountants?

A. I cannot say as to the detail of the compilation of the figures.

Q. Do you know of any instance in which any railroad operative or accountant has assumed that the ton mile basis would be a proper basis upon which to divide the expense of operation as between state and interstate traffic?

A. No, sir, I do not believe I have ever heard them commit them-

selves to that; in fact, this subject is a rather new one.

Q. In expressing your view as to the value of the gross earnings as a means of division for the purpose of adjustment, speaking of, and for the purpose of illustration I suppose, you stated that the

basis should be on the cost, not on the profit that accrues from the business, and then in illustrating you say, any manufacturing establishment predicates prices of their commodity on the cost basis, plus a reasonable profit.

A. Rather than on the profit basis.
Q. Rather plus a reasonable profit?

A. I said rather than upon the profit; I think my answer explained it later on; if not, it should. I meant to say the cost of production controlled in making the prices. It was not my inten-

tion to state that the prices of the commercial establishment 2857 were based on the profit at all, but upon the cost of production, and the price would be that cost of production plus a reasonable profit.

Redirect examination.

By Mr. HILL:

Q. Following this explanation, and considering the two sorts of revenue that a railroad company receives, one from state traffic and one from interstate traffic, pre-supposing a reasonable profit is put into the rates for each, in order to make the revenue basis of dividing the expenses equitable, that proportion of profit on each rate would be the same, wouldn't it?

A. Yes, sir, for a mathematical ratio to be correct, it would have

to be the same.

Q. That is another element of uncertainty in the revenue basis, as well as the fluctuation in the cost of service?

A. Yes, sir.

Q. If rates were made on the theory that you have suggested about a manufacturing plant, to be the cost of production plus a reasonable profit, there would be no occasion for any extra expense being adjusted to state or interstate as the case might be, would there?

A. No, sir.

Q. In referring to the station expenses apportioned on the 2858 basis of two tons for interstate and one ton for state—I mean, one ton for interstate and two tons for state traffic, I will call your attention to the cotton movement and the grain movement. Are you familiar with how those two commodities are handled, in a general way without the detail?

A. Yes, sir.

Q. Both are interstate commodities very largely; how many handlings would those commodities have, in the usual course of trans-

portation?

A. In the case with the most of the cotton movement in our state, it is moved from point of origin in cars and placed at the compress and compressed in transit at the first compress it comes to; the commission has a rule of that kind, requiring them to stop at the first compress en route; it is handled there, the railroad company doing one handling and the compress company people the other; then the cotton is moved to ship-side for export, or to the mills where it is consumed in the state; hardly any compressed cotton moves to local mills; that proportion is very small; most of it is export cotton.

Q. That is a negligible quantity; that represents then three handlings; do you know how grain is handled into Arkansas from the northwest?

A. They have a milling in transit rate?

Q. Are you familiar with that? A. Yes, sir, it would be stopped at the mill and converted

into the finished product and then shipped out. Q. The finished product is largely a fiction, but that is the theory

upon which it is moved?

A. That is the theory upon which the rate is made. Q. That would have three handlings, wouldn't it?

2859

A. Yes, sir. Q. Have you, in making your statement that this is a fair division, taken those factors into consideration?

A. Yes, sir.

Q. I believe it was explained to you also about the terminal handlings of all interstate business of Fort Smith and Memphis, wasn't it? The evidence on that was explained to you?

A. Yes, sir.

Q. I want to call your attention to these figures which I give you from Exhibit 26; that exhibit 26 is filed by the Iron Mountain Railroad, showing the freight business of one month; it shows that the trans-state L. C. L. tons were 8,482 tons, and the total trans-state tons were 216,249 tons; you will find that in the first column, the L. C. L. being less than 4% of the total trans-state; considering that condition, whatever may be the station service accorded to trans-state L. C. L. tons, would that proportion to which I have called your attention, affect, as a general proposition, this division?

A. Very slightly. 2860

Q. Now, in division terminals, there is a station expense there; would there be any difference in station expense and division terminals between intrastate and interstate or trans-state either, in going through the division terminal I mean.

A. No, sir, it is all handled alike.

Q. Now, Mr. Moore assumed in one of his questions to you, that all intrastate traffic had two terminal handlings at a station, and all interstate, not referring to the trans-state, had one. Is that a carrect assumption as you understand railroad operation?

A. It is not a fixed rule, no. He made the assumption and I

agreed to it.

Q. You answered according to his assumption; I ask you if his assumption squares with your knowledge of operating conditions in that respect?

A. No, sir.

2861 C. B. Bee, being first duly sworn and examined, deposed as follows:

Direct examination.

By Mr. HILL:

Q. Please state your name, age, residence and occupation?

A. C. B. Bee, past thirty, Ardmore, Carter County, State of Oklahoma, present headquarters, Guthrie, capital of the State of Oklahoma. My position at present is rate expert of the Corporation Commission of the State of Oklahoma.

Q. How long have you occupied your present position with the

Corporation Commission of the State of Oklahoma?

A. Since the 26th of December, 1907.

Q. What have been your duties in that position?

A. I have had entire charge of the rate department, and as such, have advised the Commission as to rates in effect in different states in the southwestern part of—the south and southwestern part of the United States, and the interstate rates in effect, the conditions governing freight rates, and assisted the Commission in making freight rates to govern shipments in the State of Oklahoma, and generally handling the rate situation in the state for the Commission.

Q. That has been your duty and to that you have devoted all

your time since you have been there?

A. Yes, sir, to that and assisting shippers of the State of Oklahoma in cases before the Interstate Commerce Commission, and such matters, as that; my entire time has been devoted to rate matters.

2862 Q. Prior to your present position, in what work were you

engaged?

A. At the time I took the position with the Commission, I was acting as Assistant General Freight Agent of the Mexican Central Railway.

Q. How much service have you done in railroad work?

A. Over ten years.

Q. In what different capacities, just briefly give your railroad

experience?

A. I started in as stenographer to the division superintendent, his office stenographer; promoted from that to car stenographer, and through the different positions in the superintendent's office, such as overcharge and damage clerk, chief clerk, and then on the road with the superintendent as handy man, going where he directed; from that to the motive power department with the assistant superintendent of machinery, and numerous positions in the motive power department, and my last service in that department was balancing power, and I was transferred to the freight department, holding all the positions in the freight traffic department up to acting as assistant general freight agent; that is, commercial agent, all the rate positions, first, second, third and fourth rate clerk, chief

rate clerk, chief clerk of the rate department, commercial agent, division freight agent, general agent, and back into the office.

Q. Has your work in these various lines caused you to observe and in a measure familiarize yourself with operating

conditions, as well as traffic conditions?

A. To a large extent, yes, sir.

Q. Since you have been an official of the Corporation Commission, have you made a study of operating conditions as affecting your work?

A. I have spent a very large part of my time in doing that.

Q. You are familiar with the rate situation, I assume from your previous answers, in this southwestern territory?

A. Fairly well.

Q. I will ask you what relation interstate rates prevailing in the southwestern territory, particularly in Arkansas and Oklahoma that you are familiar with, bear to the cost of the service, and what consideration is given in making interstate rates, to the cost of service for work done.

A. Other than a fixed figure which has sometimes been recognized in railroad rate making, I have never known of the cost of service entering into the making of a freight rate; that fixed figure has now been discarded, entirely by all traffic officials; it was the old bug bear of five mills per ton per mile, which was for years considered the actual cost of service on long hauls. That figure has been dropped, and no traffic man at present uses it, and freight rates are not made on the cost of service.

Q. What considerations govern the making of interstate freight

rates?

2864 A. All the traffic will bear.

Q. Explain just what that means in rate making parlance?

A. It takes into consideration the commodity of the traffic, the value of the commodity, the points between which it is moving, the competitive conditions surrounding the movement, and, of course, regard is given in all instances to the nature of the commodity, and that is the nearest that a traffic man ever comes to the cost of service; the rates on a low value commodity, and one which will suffer very little from damage, are considered low grade commodities, while the reverse is true on high grade commodities; no traffic man would consider the same rate on oil as he did on sand, but he would not be attempting to place the cost of service upon the two, but rather the liability, and the rate that the two commodities would stand.

Q. That is, the relation of one commodity to another?
A. That is it exactly.

Q. That is best expressed in the classification of commodities, isn't it?

A. That is true; the classifications as published today largely govern those things.

Q. But even those classifications are full of exceptions, are they

not?

A. Yes, sir, and made largely upon guess work.

Q. Are the exception sheets to classifications prevailing in Oklahoma?

A. Yes, sir.

Q. Are you familiar with the exception sheets prevailing 2865 to the Texas common points?

A. I am.

Q. Is that large or small?

A. Very large.

Q. Are you familiar with the exception sheets prevailing in Arkansas traffie?

A. Yes, both state and interstate.

Q. That puts another variable quantity into the rates, doesn't it?

A. It does, and right in there, I might add that there is a feature which shows that rates are not built upon the cost of service, as one example comes to my mind now; emigrant movables moving from Oklahoma into Texas or Texas into Oklahoma, take Class D, I believe it is-C or D; while if they are moving Oklahoma to Kansas or Kansas to Oklahoma, Missouri to Oklahoma, or Missouri from Oklahoma, they take class "A"; if they are moving through Oklahoma from Missouri or Kansas to Texas, they take class "D," so that there would be absolutely no relation to the cost of service in the movement.

Q. That is a commodity where the liability for damage is con-

siderable, isn't it?

A. One of the highest known, but it is a commodity at the same

time, that railroads never seek to make a profit out of.

Q. Are you familiar with the zone or blanket rates that prevail throughout the Southwestern country on many of the large commodities, like lumber, grain and cotton? 2866

A. Yes, sir, and citrous fruits, coffee.

Q. I wish you would explain that zone proposition, and what effect it has in showing whether the revenue is proportioned

to the cost of service performed by the railroads?

A. The rates on lumber, as I remember them, are from the Texas and Louisiana fields through Oklahoma, 1834 being the last rate in Texas, and a rate made by the commission, slightly raised at the first station in Oklahoma, gradually varies until the last station in Oklahoma northbound on the Kansas line pays a rate something in excess of 26 cents. That rate immediately jumps in Kansas to 27 and a fraction, and goes on until it gets to Kansas City, Missouri, where it drops back to 23, if I remember the figures; for years the 27 cent rate existed in Oklahoma, but at a conference between the Commission and all of the railroads operating in Oklahoma, this rate was reduced to points in Oklahoma in order to keep a case from being filed before the Interstate Commerce Commission, which would have resulted in a general reduction of all lumber rates, and the only reason for the high rates at the northern points of Oklahoma, is that it only applies at two or three little stations where no business moves, and it was to keep Kansas from having her feelings hurt very badly in having a 23 or 25 cent rate at her border

that it was not reduced; they were afraid she would go before the Interstate Commerce Commission

Q. That is a recent adjustment. 2867

A. Yes, sir, May, 1908, I believe it was.

Q. Is that characteristic of every zone or blanket rate with which you are familiar?

A. That is the general condition.

Q. Our inquiry is more particularly confined to the situation in 1907; were you familiar with the lumber rate from territory south of the Arkansas river to the gulf to Mexico, that prevailed at that time-I really don't know whether there has been any change in it?

A. I am. There have been slight changes, but only slight.

Q. Give the effect of that as it existed at that time, if you remember it?

A. At that time the intermediate rates were higher than thatwhat was then known as terminal rates, rates applying to St. Louis, Kansas City, and often higher than the rates applying to Chicago. The Omaha rate at that time, if I remember, was 26 cents, or 251/4 cents, and the Chicago rate was 26 cents, while the blanket rate through the south, after leaving the Texas line, was in the neighborhood of 27 cents.

Q. I believe our map shows in 1907 that it was 23.

A. You are on the direct line; through Oklahoma it was 23 on the direct line, on the Katy, and I think you will find it in Arkansas, off the main line, they went to 26 and 271/2.

Q. For that service there was a 23 cent rate in that terri-2868 tory to one of these northwestern points; for that service,

what different hauls were made of the commodity?

A. If the rate was 23 cents to an Arkansas point, and 23 cents to Kansas City or St. Louis, there was a difference from three to six hundred miles in the haul for the same rate.

Q. Suppose this lumber originated down in Louisiana on another line than the Iron Mountain or one of these, how would that rate

be changed or distributed, whichever it happened to be?

A. They had through rates in effect with those lines and had divisions in effect,-I don't remember what the Iron Mountain's division was.

Q. I am not asking the actual division, but the proposition is whether that 23 cent rate would be divided with other lines?

A. Yes, sir, with numerous other lines, sometimes as high as three

were interested in the division.

Q. That 23 cents would be distributed over as many lines as the commodity was handled?

A. Yes, sir.

Q. In ma-y of those cases, tap lines that had very short hauls would get a division?

A. Yes, sir, they got a division up to 1907; the tap lines did get

a division of the rate.

Q. Are you familiar with how grain is handled into Arkansas, I mean on what rate from the northwest?

2869 A. A large part of it is handled in there on a flat scale. Q. Milling in transit rate?

A. Milling in transit privileges being granted on it.

Q. That is an interstate movement?

A. You mean grain for local consumption in Arkansas?

Q. Yes.
A. It is handled in there from Kansas and Oklahoma, and the mills in Arkansas have the privilege of milling that grain and shipping it out at the balance of the through rate.

Q. How is it shipped out after it reaches a distributing point

locally, through trains or in what manner?

A. If going to a local point, it is shipped on a local train; going through, it would probably be shipped on a trans-state train if they ran them.

Q. Depending upon the destination I presume? A. Entirely.

Q. How are the rates made for this grain that moves from the northwest into Arkansas and consumed in Arkansas. basis?

A. Generally a territory is taken and embraced in a group; now, the Kansas rates to Arkansas, of course, I am not familiar with as I have not looked them up, but I know there are rates in effect from points in western Oklahoma which extend over to the center of Oklahoma, and those rates are flat, regardless of the point of origin, whether the extreme western point or central point of the

group, or the eastern point of the group—the rate would

2870 be the same to Arkansas points.

Q. By a flat rate, you mean one that is flat for the group. irrespective of the number of carriers that handle it?

A. Absolutely.

Q. Now, in the practical working of these flat rates, what regard

if any is had for the cost of service performed?

There can be no contention that the rates are made upon the cost of service, for a car of wheat moving from Alba and from Enid take the same rate; either one is exceedingly high and above the cost of service, or the other is exceedingly low and below the cost of service, where the rates are the same, and it is impossible to sav that those two rates being exactly the same are built upon the cost of service in both instances.

Q. Owing to the difference in the length of the haul, and condi-

tions under which they are handled?

A. Yes, sir.

Q. And the number of participating carriers in the common rate?

A. Yes, sir.

Q. There are various terminal handlings in that, and there

would be large differences in the terminal handlings.

A. That is true; grain might come over one line direct, it might originate over at one station south of there and move at the same rate and move over three lines, and be handled through the larger towns and the big junction points where excessive handling charges occur.

Q. How is cotton moved?

Q. Handled and moved, state or interstate?

A. Cotton originates at one point, originates where it is grown, delivered to the railroad company on their platforms; if they are filled, upon their right-of-way, by the railroad company loaded into cars; moving generally at their option to a compressing point, there held on the cars until ordered to the compress; delivered to the compress, unloaded by the railroad company, again taken from the compress when the pressing is completed; loaded again by the railroad company and handled to its final destination, that cotton being treated as strictly L. C. L. freight.

Q. L. C. L. in its movement or final movement?

A. In its entirety; rates on cotton are always quoted regardless of quantity; the rate on one bale of cotton is the same as the rate on a thousand bales.

Q. I don't know about the cotton situation in Oklahoma, but it is an admitted fact in this case that there is practically no cotton

consumed in Arkansas?

A. I know the State of Arkansas well enough to state that the part of the cotton consumed in Arkansas would be infinitesimal.

Q. The rate that you have been referring to then is a through rate from the point of loading of the cotton to its point of final destination, which is under these circumstances, necessarily out of the state?

A. Entirely so.

Q. It makes that whole movement, with possibly an infinitesimal

quantity, an interstate movement?

A. Exactly. One thing more; in that cotton movement, cotton when billed from the point of origin to the compressing point is always billed on the local rate; it is then state business and so considered; it goes into the compress at this local rate, and when forwarded to its final destination, the rate from the point of origin to the final destination is charged, and either the local rate that has been paid in, is refunded entirely, or the difference between that and the rate from the original point of origin to the final destination is paid. That depends altogether on the consignee, how he wants to handle it.

Q. In this case, it is a proved fact that while the actual movement is as you stated, so far as the revenue is concerned, it is all carried as interstate revenue? How is that first movement of cotton

usually made, on local or through trains?

A. It generally originates at small places and moves on local trains, either to the division point or to the compressing point straight, and as a general thing, the compresses are usually so situated that there is one at the end of each division, so that it seldom

has to move by a terminal point to get to a compress though
oftentimes the railroads allow big hauls for long distances and
in some instances allow cotton to pass one compress and go
to another.

Q. I believe you had some litigation before the interstate Com-

merce Commission, between McAlester and Muskogee on that proposition?

A. Yes, sir.

Q. What do you say as to the expensiveness of the cotton traffic as compared with the average traffic handled by railroads?

A. I think that cotton in its entirety is the most expensive com-

modity handled by the railroad companies.

Q. What are your reasons for that?

A. I think it entails great expense and more liability upon the railroad company than any other commodity handled, and the reason is that it requires a large force to load and unload. As a rule, cotton is loaded at small stations where there is but one man employed; it is necessary to bring the section foreman into that station to load that cotton on, else employ people there in the town to load it. Oftentimes, railroad companies pay the owners of the cotton to load it for them. Care must be taken to get a perfect car in which to load this cotton. After it is loaded, railroad companies by their rules require that the doors be batted, which requires an additional expense, and this batting is always thrown away

at destination, unlike grain doors which are returned. This
cotton must be placed in the yards at the compressing point,
and it is a very unusual thing, during compressing season, if

there is not an extra switching engine at all large compressing points; as cotton is not handled upon its arrival at the compressing point, but the people who own it hold it and there is no way for the railroad company to tell what car is next going to be called for. I have seen as high as five hundred cars of cotton laying in a vard, and some of them would be there twenty and some thirty days, some only three days, and every time a car is called for, it generally means the switching of that entire cotton yard to get that car out and switched to the compress. Demurrage and storage has not been charged on cotton heretofore; it is now, in order to do away with this extremely heavy expense. After cotton is moved to the compress, it is again put back in the car, the same processing being gone through with. In the cotton countries in our state, some railroads equip their engines with oil burners, in order not to throw They haul oil a long distance and do not handle oil on other branches of their road; it is merely to protect this cotton. Cotton moving from point of origin to the compress point is in big bales, and I think it requires about 21/2 to three cars of open cotton

or flat cotton to make one car of compressed cotton, so that 2875 there is that many cars moved into the compress which must move back empty for other cotton, and the liability on the cotton is very strong; it is always loaded at shipper's count at blind sidings, sealed after he closes the doors, seldom counted by the agent; fires have often been known to occur where there was a

Q. What is the casualty rate on cotton?

A. High, exceedingly so; once a fire starts in a bale there is no telling when it will stop, or when it will be discovered.

question as to whether there was a bale of cotton in the car at all.

Q. What kind of rates are made on cotton to final destination? Do they vary with the distance, or what kind are they?

Ours is a flat rate of seventy cents.

Q. In what territory?

A. That is the rate to the New England destination from Oklahoma.

Q. Ours is 85 I think, but I am not certain; I would like to know how you get into New England States at less than Arkansas?

A. It is 70 cents to Galveston; we have a flat rate of 70 cents, I don't know just where it applies to.

Q. I am just inquiring of the principle?

A. It is a flat rate to the entire cotton group. There is a flat rate from our country to Galveston, and a flat rate northbound.

Q. Mr. Bee, have you inquired of a traffic man as to the

rate from Arkansas to Boston? 2876

A. I have; I understand that from Little Rock it is 80 cents, and from Fort Smith practically 85.

Q. What I am seeking to ask you-to what territory generally speaking without going into details, does that flat rate apply?

A. I should judge it would apply to what are called New England

Q. And that would be anywhere in New England irrespective of distance unless there is some arbitrary charge to some given point?

A. There are some lines not participating in those rates possibly, but as a general proposition, I would say it would apply to all the New England States.

Q. The first end of that rate, does that usually call for an eighty

cent rate from Little Rock and adjacent territory?

A. As a usual proposition that rate would apply from territory immediately surrounding Little Rock and some distance on either side, but owing to the Mississippi running along at their door, there may be some exception to that rate in Arkansas which I would not know.

Q. The Cimeron runs along your doors too, doesn't it?

A. So does the Cotton Wood.

Q. The point I want to call your attention to is this, that cotton starts at various points near by, goes to the trade center like Little

Rock or Fort Smith, and is carried to Boston or nearby towns there, on a flat rate; I will ask you if that flat rate is ir-2877 respective of the number of participating carriers that handle it?

A. As a usual proposition it is.

Q. Then that eighty cents contains many divisions, or if it were possible to have one line of rails, there would be no division?

A. Yes, but I don't know how it would be possible to carry it to New England on one line of rails.

Q. That is carried between many terminals, I presume? A. Yes, sir, and through the highly expensive terminals too.

Q. Do you know the blanket rate on the citrous fruit; I don't mean the actual figures but the principle upon which citrous fruit is handled from the west?

A. Yes, I think the rate is flat from the Colorado common points, I believe; that is, California fruit coming through, it is flat from

Colorado common points, if I remember the rate.

Q. Let's see the practical operation of that; suppose there would be two cars of oranges started out from Los Angelos, carried from Los Angeles to El Paso, and over the Iron Mountain to St. Louis and then on East; one of those cars is dropped out-say there is a series of cars, one dropped at Houston, Texas, one at Texarkana, one at Little Rock, and one at St. Louis, and a half dozen carried further east, and the last one ends up at Portland, Maine, what would be the rate on those various cars I mentioned?

A. I don't know whether that rate applies to that Maine

2878

Q. Substitute New York for Portland, Maine?

A. I will assume that it applies to New York, but I don't know whether it does or not; assuming that it applies to New York,and the tariffs on file here are the best evidence of the application of the rate, there would be a haul in there of approximately a thousand miles over that between the Little Rock car, the New York car, and if the New York car was pulled on the cost of service, there would be an exceedingly high profit made out of the Little Rock car or vice versa, somebody would lose money in carrying that car to New York.

Q. That is a trans-state movement so far as Arkansas is concerned?

A. It is what would be called a trans-state movement.

Q. If that is largely a trans-state movement, so far as the Iron Mountain and Cotton Belt is concerned, there would be a pretty small proportion of revenue attach to these companies for handling across Arkansas, wouldn't there?

A. You mean the revenue they would receive per ton per mile

would be slim?

Q. They acquire their revenue in this case on a mileage scale? A. Yes, probably the eastern lines would require the largest part of it.

2879 Q. I mean the proportion on the mileage scale would be for probably a run of three hundred miles through Arkansas?

A. Yes.

Q. And it would be at the rate of a pretty thin scale?

A. Yes, sir, such a rate on that car would be exceedingly slim. because the Southern Pacific would likely originate the business. and as the originating line would demand a large share of it, and the line at destination having the market would also demand probably a little larger share than the mileage pro rata, and I imagine a shipment of that kind handled by the Missouri Pacific would return a very small rate if they handled it.

Q. Have you just looked at the maps that are filed as exhibits in this case, showing the zone or blanket rates on various commodities, and are you familiar in a general way with the zones that

are shown in these maps?

A. Generally speaking, yes, sir; I have had occasion to work in

these zones to some extent; Oklahoma is a part of most of these zones.

Q. There is a map there on Texas common points?

A. I am thoroughly familiar with that.

Q. State the effect on the revenue of shipments passing through Arkansas under that Texas common point schedule?

A. The conditions could be so changed on two carloads of freight of exactly similar commodities, loading from a given point

2880 of origin, to separate destinations in Texas that the revenue received by the lines participating in the business would be almost double on one car what it was on the other. That Texas common point rate applies from the North to the south, and from the east for a long distance west; the highest distance between two points being 662 miles, in what is known as common points territory.

Q. That is at the Texas end of it.

A. Yes, sir, I think that is the highest distance; I figured it out the other day for the Interstate Commerce Commission.

Q. How would that result be brought about?

A. The result would be brought about by two shipments originating at St. Louis, the cars being loaded with identically the same commodity, one being destined to Texarkana, Texas instead—take to the first point in the common point territory of Texas—I believe there are two stations in Texas (Referring to map) "Take two shipments originating at St. Louis, handled over the Iron Mountain, one destined to the first station in Texas, on the T. & P. R. R. south of Texarkana or west of Texarkana, the other being destined Big Springs, Tex. which appears from this map to be the end of the common point territory. The distance between those points is in excess of five hundred thirteen miles," and the rate would be exactly the same. Dividing the rate by the miles handled, figuring in mills per ton per mile, it would show a figure nearly one-half for the car destined for the last station as for the car destined for

2881 the first station. The exact figure would be easily worked out. In other words, the haul on one would be something over 513 miles more than on the other, and the rate would be the same per hundred pounds.

Q. What effect would the distribution of that rate between the

different carriers in Texas, have upon the matter?

A. The other carriers in Texas would receive a part of the rate.

Q. Within that Texas zone would there be different carriers handling this commodity?

A. Yes, you can figure rates from defined territory to Texas points that would require the handling of three or more carriers to deliver the shipments.

Q. And others where it would be handled by one-the Cotton

Belt I expect would.

A. That is really two railroads, the St. Louis Southwestern Railroad, and the St. Louis Southwestern Railroad of Texas. While really it is one line, it is two different corporations; the same would

be true of the M. K. & T., or any of those lines; they are all separate corporations when they get into Texas.

Q. Take further back from St. Louis, suppose it originated in

Pittsburg?

A. The same condition would exist, but naturally the further back you got, the less disparity there would be in the rate, because

the longer the total haul, the less disparity in the final result: if you take further south from St. Louis to the last point shown in defined territory on the Iron Mountain, which would be from this map, Grand Glaize, Ark., take a carload of freight from that point and figure to the first point in Texas, and a carload from that point and figure to a large point in Texas that this defined territory covers, it would show about three to one.

Q. Then run the other end of the scale; how far back does that

go—to Pittsburg?

A. Yes, sir, that is the eastern limit.

Q. That, of course, takes a higher rate than to St. Louis?

A. Yes.
Q. The rates to Pittsburg and places in that country would be the same as the Pittsburg rate?

A. In the group surrounding Pittsburg, the towns would take the Pittsburg rate; the Chicago territory would take the Chicago rate; St. Louis territory, the St. Louis rate.

Q. Suppose there was a shipment from Pittsburg territory, say outside of Pittsburg from the steel mills to the farthest large town in Texas, what would be the farthest large town?

A. Big Springs.

Q. How many divisions do you suppose that rate would have?

A. How many carriers?

Q. I suppose each carrier would represent a division of the rate?

2883 A. Yes, I imagine you could break that up into ten or twelve if you were a mind to, or you could hold it down to probably three or four.

Q. There would be several?

A. It would generally take at least six carriers to handle it.

Q. From that territory in there down to the common points in Texas, that would pass through Arkansas on one or other of these two lines?

A. I would say the average would be four or five lines that would handle it.

Q. There would be a fluctuating condition of the revenue apportioned to Arkansas railroads handling the shipment?

A. Yes, it would hardly be the same on any two courses.

Q. It would be pretty near impossible to make it the same on any two cars, I suppose?

A. That would depend largely on the basis it was divided, whether it was a mileage pro rata or arbitrary pro rata or con-

structive mileage pro rata. Q. Are all of those factors used in making divisions of rates?

A. They are.

Q. Are they variable factors?

A. Very much so.

Q. That seems to be another element that would enter into the uncertainty of revenues?

A. That is true?

Q. Are you familiar with the system of rates from St. 2884 Louis to New Orleans and say from St. Louis to Little Rock or any other common points in Arkansas?

A. Generally speaking, yes.

Q. I don't mean the actual rates.

A. I have seen the rates and worked with them at times, had oc-

casion to quote them.

- Q. It is in evidence here, from Mr. Watson, that on various articles. I don't recall them now, where there is a higher rate to Little Rock than there is for the same article moving to New Orleans?
 - A. That would be possible and very probable. Q. What is the situation that calls for that? A. The so-called water competition, I presume.
- Q. You say "so-called"; are you using that term accurately or figuratively?

A. I am using it accurately.

Q. Have you any water competitive rates in Arkansas and in Oklahoma?

A. We have some to Muskogee that I have never been able to see.

Q. On the Vertigree?

A. I guess it is on some such river, the Arkansas or something.

Q. I wish you would explain in a general way how these rates that are enforced in Arkansas are affected by this so-called water competition?

2885 A. There could be conditions existing under water competition where New Orleans could get into local territory in Arkansas, much cheaper than—on less than carload freight or otherwise, than merchants located in Arkansas could get into it from main producing points. I can illustrate that by a condition existing in Oklahoma that I know of thoroughly, where I do not know of Arkansas rates, and the factors that make them, and that would be necessary to pick out these conditions. At one time rates to Muskogee from seaport territory were such as, compared with Ft. Smith, that Ft. Smith could get a carload of freight in from seaboard territory-

Q. You mean Atlantic seaport?
A. That is known as seaboard territory; Ft. Smith could get a carload of freight in from Atlantic seaport territory, and there peddle it out, that is, L. C. L. it out right at Muscogee's door or ship it out as carload freight to Muskogee's door, cheaper than Muskogee could get that car in, and it was absolutely taking Muskogee's territory away from her; those conditions were changed, and do not now exist; that was due to so-called water competition at Ft. Smith.

Q. That was the Arkansas River or the Porto?

A. One of those rivers that does not bring any freight over it.

Q. There are a large number of rates in force in Arkansas and Oklahoma, that are based upon the theory of water competition when water competition does not exist, are there?

A. Yes, there are numerous rates based on that.

Q. These instances I have given you are rates that Mr. Watson has testified to, from St. Louis to New Orleans, being lower than from St. Louis to Little Rock for the same commodity—that would be an illustration of it I presume?

A. It would; I presume, they work it out virtually the same way; I would have to have the rates and work them out as factors before

I could testify to the exact result.

Q. Can you see any reason in rate making why Little Rock should

not be recognized as a water point as well as New Orleans?

A. I have not been down the Mississippi often enough, but I cannot believe that these are water points; I live at an inland town, Judge Hill, in an inland state, and we people who live away from the water do not feel very friendly towards water competition.

Q. You haven't got any navigation on the Cimeron yet to affect

the rates?

A. Yes, we have pleasure boat navigation three weeks in the year, and get hung on the sand bars then.

Q. What is the common method of making state rates-I mean

in our southwestern country?

A. You mean by railroads?

2887 Q. What are the rates that prevail in states in the southwestern territory, commission rates or voluntary rates?

A. Most of the states now have a combined commission and legislative and voluntary rates; in Kansas, there are a number of voluntary rates, a number of commission made rates, and a number of legislative rates; in Oklahoma, we have on some lines, Commission made rates, voluntary rates on the same lines; on some articles and on other lines, we have all voluntary rates; Arkansas, I understand, has some court rates and some commission made rates.

Q. They are all merged into the court rate now?

A. Texas has all commission made rates; Missouri has Commission made, partly voluntary, and Mississippi and Louisiana the same.

Q. The evidence in this case shows that all interstate rates are commission made rates.

A. That is due to the commission having adopted the court tariff, I presume.

Q. Those in litigation here are commission made rates; I was asking for the prevailing rates; that has been explained. Now, I will ask you, on what basis is a state rate usully framed?

A. Arbitrary strictly.

Q. Mostly distance rates aren't they?

A. Yes, sir.

2888 Q. Speaking of the classification, what effect does the classification have on the state rates. Do commission and voluntary rates carry exceptions to the Western Classification as well as interstate rates?

A. Some of them do; some of them carry exceptions; some states

in the southwest carry other than the classifications naturally, but all states that adopt the western classification carry exceptions to it.

Q. You have a classificaion system of your own in Oklahoma don't you?

A. No, sir, we carry the western classification.

Q. What do the railroads do?

A. The commission has made no class rates yet, but the railroads have carried the western classification with exceptions, the commission has held a hearing on a proposed order, and I think the rates will be checked in in a very short time, and while I am not giving away any inside secrets or anything, they will be checked in on the western classification with exceptions.

Q. Applicable to the State of Oklahoma?

A. Yes, sir.

Q. It is in evidence that the Arkansas Standard Distance Tariff was based on the western classification, subject to exceptions therein.

A. Yes, sir. Q. What effect does this variation in the classification that you have just explained, have upon the revenue?

2889 A. It is possible to change the revenue materially by variations in classifications.

- Q. In what way; that is clear to your mind as a traffic man, but to the lay mind it would probably require a little explanation of just how it is done.
- A. As a sample we will say the first class rate is 40 cents, and the second class is 30 cents; a change was made in the classification, and the exception would reduce it to second class; it would immediately change the rate from first to second, and would make a change in the revenue of the railroad of ten cents a hundred pounds.

Q. What effect does the sum of the locals have upon interstate rates?

A. The sum of the locals have little effect upon interstate rates; the Interstate Commerce Commission have said that where the through rate exceeds the combination of the locals, it would be considered prima facia unreasonable, and they virtually by that, restricted the railroads to the application of the combination of the locals, but it should be further understood in that connection, those rates are supposed to be voluntary rates of railroad companies, long in existence, and the Interstate Commerce Commission have more than once refused to accept as one of those factors a state made rate.

Q. That is, say Oklahoma would make a certain rate, and Arkansas would make a certain rate, this principle would not be ap-

2890 plicable.

A. No, sir, and it is not applicable so far as actual practice is concerned, even now, because I can pick out, and did the other day on the witness stand, where the Sante Fe Railroad charged on interstate business from Kansas City to all points on their lines in Oklahoma-that is, to a large number of points on their lines in Oklahoma, rates that are in excess of the combination of the locals, and it was a fact that was not known by anyone concerned before, and I suppose it will be corrected by changing the state rate or the intersate

Q. Going back to the question I asked you a moment ago, as to the difference in classification, suppose Oklahoma classes a commodity one way, and Arkansas classes it different, how would you get the sum of the locals.

A. Easily.

Q. You could work that out? A. Yes, sir.

Q. But it would be a different revenue in each state, owing to the different classification?

A. It would be a different revenue, but the through rate might be affected; it might be lower than the through rate published by the

railroad companies.

Q. I want to read you some of the testimony in this case 2891 given by Mr. Frank Nay, the Comptroller of the Rock Island He was discussing the revenue theory of dividing expenses and these are the statements to which I want to call your attention:

"Q. And it will, of course, be inaccurate to the extent that the proper relation does not exist between state and interstate rates?

A. Yes, sir; I think that is true.

Q. And when the rate does not represent the cost of the service it would not be of any value at all, would it?

A. Well, if there was such a rate, no, sir; it would not be. If there was any such rate that did not represent the cost of service at all.

Q. Now, Mr. Nay, does not the rate presuppose it covers the cost of service and a profit also?

A. Surely, I should think it would. As I say, I am not a rate maker, but it would seem that the railroads should have some profit or return upon their investment.

Q. There should be two factors in that rate; one, the cost of the service; and the other, the profit to the railroad company in perform-

ing the service?

A. If I were making rates, I think as a novice I would use those two factors. I suppose there are others. There are commercial conditions which necessarily govern; and, of course, the density of traffic, which reduces the cost of the service."

Q. You see from this statement that Mr. Nay says he is not a rate maker and elsewhere he says his knowledge of rates is theo-2892 retical. He is dealing with the proposition of whether the

revenue produced from the rates is a proper measure of the cost, and states that it does not represent the cost of the service, or if there is not a proper relation between state and interstate rates that the revenue basis has no value?

Now, calling your attention to that, I will ask you what is your opinion from your knowledge of the rates, of the relation between

the state and the interstate rates.

A. There is no relation whatever between state and interstate rates other than the relation enabling a local jobber to do business.

Q. That is a commercial relation?

A. Entirely.

Q. Elsewhere in this testimony it further appears in Mr. Nay's testimony (pages 354 and 355), in concluding an answer he says: "If they were in exact proportion all the time, the revenue basis would be a perfect basis." That is referring to the two classes of rates, intrastate and interstate.

Then this question was asked:

"Q. And if it represented the cost of the service? You would have

to have that also?

A. I presume if they were in proper relation to each other they would represent the relative cost of the service. When I say "in proper relation to each other" I mean in reference to the cost of the service.

Q. Some of these traffic men use that term in an entirely different sense. I think your use of it is correct, but you will see from the testimony the others use it as having a proper adjustment

to the commercial conditions. A just rate of one trade center with another trade center. That is the reason I was particular in calling your attention to it. You mean by it a proper relation of the cost of the service; isn't that right?

A. That is what I had in mind.

Q. That is what you had in mind in your testimony generally, I assume?

A. The proper relation?

Q. The proper relation of cost, you mean?

A. Yes, sir; the proper relation in regard to the cost."

Q. I have read that to call your attention to the two uses of the term "proper relation" in regard to the freight conditions, and "proper relation" in regard to cost, and ask you from your knowledge of the rate situation, where is there relation, if any, between state and interstate rates?

A. There is no relation whatever between state and interstate rates other than a commercial relation which will enable both to do business. But insofar as cost of service is concerned, the basing of rates upon that feature, there is no relation whatever between state and interstate rates and it is impossible to have any relation between them.

Q. Why is it impossible to have any relation between them?

A. Well, the difference in distance is so great that a rate made on one basis would not apply on the

other.

The distance from St. Louis to Oklahoma points—and I prefer answering your questions as to a certain extent, hypothetically and theoretically, as I am to use Oklahoma instead of Arkansas; I prefer to use that as I am thoroughly familiar with those conditions—the rate from St. Louis to an Oklahoma point is predicted upon a haul of about six hundred miles, or somewhere in that neighborhood.

The haul within Oklahoma on a given shipment, like commodity,

would approximate fifty miles.

Now, there is no relation directly between the six hundred mile haul and the fifty mile haul. It is impossible to make a direct relation between the two and meet the conditions that have to be met.

If rates could be built entirely upon what we call a scientific mileage scale there would then be the chance to have each shipment pay its pro-rata part of the cost, but in the conditions existing, this freight from St. Louis comes in competition with Atlantic seaboard freight which is handled via Galveston; it comes in competition with German and English made goods handled in trans-state steamers to Galveston, Texas, at a very low rate; practically brought over in cotton seasons as ballast in the boats.

The rates from Galveston are then made to points in Oklahoma.

The same conditions exist in New Orleans. Competition from St. Louis must meet that from Ft. Smith and that from

Texas centers.

The result is that the relation of the rates from St. Louis to Oklahoma do not take into consideration the local rates in Oklahoma, but the rates from the surrounding States and Territory that supply Oklahoma with the same commodities that the St. Louis rates apply to.

Q. That is sort of a trade balance?

A. Absolutely so; a necessary condition in order to market the product.

Q. Take an illustration and see if I get your idea clearly; you are familiar with the Arkansas Standard Distance Tariff?

A. I am.

Q. Take the lumber schedule that moves on a mileage distance

rate, I believe, with a rough material rate into the saw mill:

Compare the rate for lumber moving from a saw mill in Southern Arkansas, moving first into a saw mill, probably from some tap line; then manufactured into lumber at the saw mill and shipped out to Little Rock Fort Smith, or any other intrastate point:

Compare that movement with a similar movement of lumber shipped from Lake Charles, La., on a twenty-three-cent-rate to

Omaha:

What relation would there be between the revenue in the 2896 lumber shipment under the Arkansas Standard Distance Tariff and the relation of the revenue derived under this interstate tariff in that zone?

A. It is impossible to make a comparison. There is no compari-

son there.

Q. Mr. Nay says that unless there is a proper relation based on the cost of the service between the two, the revenue theory would be of no value.

A. There is no possible chance to make a comparison between those two rates. They are not related to one another in any way. One does not depend upon the other. One is not taken into consideration in making the other. They are as unlike as black and white and no comparison can be drawn between them. A man would be foolish to try to draw a comparison between two sets of rates, because no two factors are entering into the rate that are the same except the proposition of the railroad handling the business.

The rate from Louisiana points to Omaha and all intermediate points, is twenty odd cents. At which point are you going to take

it to compare it with the Arkansas rate to find the comparison? There are no two things entering into it that are comparable.

Q. Suppose we get something that can be compared:

It is in evidence here that lumber shipped from points in Northern Louisiana to St. Louis would carry an eighteen cent rate, but if that were shipped from the same point into Little Rock, it would carry a twenty two cent rate, going over the

same track, originating at the same place, part company at Little Rock, get a twenty two cent rate for the haul to Little Rock and eighteen cents for the haul to St. Louis; and a similar shipment that happened to be within the State, the same length of haul, would have still a different rate fixed by the Standard Distance Tariff:

What relation would you figure out existed there?

A. I have worked rates a long time, but I fail to be able to find any relation between those rates. There is a competitive condition, Judge, that creates that eighteen cent rate at St. Louis, which the railroad sees fit to meet. That was years ago. I understand from traffic men that it does not exist today, but the rate exists, and that competitive condition that did exist caused that eighteen cent rate from Arkansas and twenty two cent rate from Texas and Louisiana fields into St. Louis. There was not any state rate in Arkansas or Oklahoma that had anything to do with the making of that freight rate, and when they came along to make the Oklahoma and Arkansas rates I do not think they took that rate into consideration.

We find in Oklahoma, in some instances, there are six cents difference between the local rate in Oklahoma, between two given

points, and the rate from Texas to that point.

In one place there would be eight cents and in another 2898 place there would be ten cents. There was no reason for any of that. There was not any mileage condition that could possibly bring around the exact differences or anywhere in the neighborhood of the differences, and I fail to see where a man can draw a comparison between a state rate and an interstate rate and say they. are related to one another, and when built upon the other, there is a condition under which a man could compare a state rate and interstate rate, possibly, on a revenue basis, to see if one was paying its pro-rata part of the cost as compared with the other.

Q. What would that be?
A. The traffic moving interstate on each different commodity would have to be of the same proportion as the traffic moved in the state on the same commodity and then the rates would have to be so far apart as was found the difference between handling state traffic and interstate traffic and if each rate was built upon that exact factor then a man could take the revenue theory and so on that basis could be divided the expense, but I know of no other conditions under which the revenue theory could be taken.

Q. That is a condition that does not seem to be existent, as gath-

ered from your testimony.

A. It not only does not exist, but it is impossible for it to exist.

Q. Let us see if I quite follow you: suppose you take 2899 lumber: to make the revenue basis fair there would have to be the same proportion of lumber moved in the State business as in the interstate business?

A. Exactly.

Q. And in addition to that, there would have to be the same rate per ton per mile?

A. Plus the extra cost. Q. To start with, you would have to have the same rate and then you would have to take care of the extra cost of short haul?

A. That is it exactly. Q. Then, would you not have still another factor to take care of?
A. What is that?

Q. The profit the road is entitled to make on both classes of the shipment, in addition to the cost of service?

A. That would be taken into consideration, too.

Q. You are assuming that the profit is included in the rate?

A. Absolutely.

Q. Without that condition existing, then, you would be very much like Mr. Nay; you would think the revenue theory had not much value?

A. It would have no value at all. There is no condition in which it can have any value as between state and interstate rates.

Q. I handed you a few moments ago a statement to read, 2900 from Mr. Nav. about the relation that existed in the classification between state and interstate.

A. Yes. Q. Do you remember it?

A. Yes.

Q. I wish you would state the substance of the statement as he understood it and the way you understand the facts to be. I will look up the page and hand it to you.

A. While you are looking for that, I will show you a difference

between state and interstate rates:

The rate from St. Louis to Mulhall, a distance of approximately 590 miles, is \$1.30 on first class. This yields something over twenty two mills.

The rate from St. Louis to Oklahoma City, approximately 640 miles, has a rate of \$1.30 also. This yields approximately twenty

mills.

Now. I do not see any possible way to compare a state rate with one or the other of those, and if you are going to compare it, which one you should accept to say the interstate rate is built with-on the one they get two mills per ton per mile more than they do on the other, and I fail to see where the factor comes in that can be compared.

Q. Here is the statement (page 360):

"Q. You understand the state rates certainly in Arkansas 2901 and probably in many other states, are fixed by the Commission; so the railroads do not get a guess at them. So you must interpret Mr. Johnson's testimony here as referring to interstate rates?

A. Yes, but by examination of the two I find that practically the same relative cost of first, second and third classes in car loads existwith the Commission as with the interstate rates.

Q. You differ with lots of these witnesses, like Mr. Watson, very

much, Mr. Nay.

A. His judgment is better than mine. I say practically the same. I have not compared individual rates. But what I mean, Judge Hill, is to say, for example, here is an Arkansas rate, a rate for first class 50% more than the rate for fourth class. In the interstate rate tariff the rate for first class is double the rate for fourth class.

What I mean is that they have preserved a relation and fixed a higher charge for the commodities that are classed as first-class in this classification than they have for those fixed as fourth class.

Q. That is following out the classification. And I suppose they run along general lines with not much difference. But Mr. Watson in our last hearing took a great many instances of the leading commodities in the State and pointed out where there was an improper relation between state and interstate rates."

That is the point I want to call your attention to, as to whether as a practical matter, not as a theoretical one, whether this relative cost between first, second and third class exists between interstate

rates and Commission rates.

A. I do not think they do. The rate from St. Louis to Little Rock, the fourth class rate, is forty five per cent of the first class rate.

What I understand is the average haul in Arkansas on state rates, the Standard Distance Tariff shows that the fourth 2902 class rate is 66.6 of the first class rate. In other words there is 21.6 per cent variation between the two.

Q. That is the percentage of the relation between the two?

A. Exactly.

Q. It is just another factor in addition to the fluctuation in the rates that reaches to the revenue.

A. Exactly.

Q. You do not find Mr. Nay's theoretical illustration in practice? A. No, I have worked it down to every possible point in the voluntary rates of the railroads in Oklahoma and the voluntary interstate rates of the roads, and there is not a single instance I have ever found that they were the same.

I went into that theory to try to find out if they were built upon

such a basis.

The Chicago-Guthrie rate is 58 per cent, fourth class of first; the Oklahoma rate on the Santa Fe is 53.44 per cent.

Q. Is that a voluntary rate?

A. Both are voluntary rates. I do not see where any adjustment comes in.

The Chicago-Missouri rate—I will call fourth as against first, as that seems to be the one Mr. Nay took up-that 2903 is forty per cent; Chicago-Guthrie rate is 58 per cent; St. Louis-Kansas City rate is 45 per cent; St. Louis-Guthrie rate is

63 per cent; the Kansas City-Guthrie rate is 65.3 per cent.

The percentage of class rates from Chicago to the Mississippi River and Missouri River to Colorado common points I find the

average is 51.2 per cent.

Now, in all of those there is absolutely no comparison whatever, so I fail to see—none of those rates will compare with the local rates as assessed in Oklahoma, and I do not see where the comparison comes in as he has it, 50 to 50.

Q. That kind of rate making is right square up against the

Western classification?

A. It is just as I understood Mr. Johnson, of the Cotton Belt, testified before the Interstate Commerce Commission, that the rates in Oklahoma and Arkansas had been made in a hap-hazard way and were never straightened out.

Q. Let us see if I can find what we have here—this is Mr. Johnson of the Iron Mountain, traffic man—J. M. Johnson.

A. I was talking about S. C. Johnson.

Q. This is another Mr. Johnson. He says:

2904 "But in making rates is the general average of cost of moving the commodity taken into consideration in fixing a rate that will be compensatory in the moving of any particular commodity? I refer to the general average of cost you have spoken of, as shown by your records at the end of the year.

A. No, sir, rates are not made that way. By experience we have some knowledge of about what we ought to have for the service in question, but rate making as a general proposition is largely a guess and the railroad people claim that by experience they are much better able to guess correctly than the other fellows. There are so many factors entering into the cost that it is impossible to determine the cost of moving the different classes of freight. And we can only determine in a general way, from experience, about what is fair and compensatory."

2905 Mr. Moore: I object to the statement of counsel that this is the testimony of Mr. Johnson in this case.

Mr. Hill: It is not the testimony given by Mr. Johnson in this case, but it is the testimony of Mr. Johnson in another case.

Mr. Moore: Brought in here by hearsay.

Mr. Hill: I am not asking how it was brought in here. I am asking what is his opinion of the rate situation?

A. To a large extent it is true.

I don't think, Mr. Hill, that a traffic manager or a general freight agent making the freight rate, ever looks at the cost of service.

If at the end of the year the financial reports showed that the railroad was losing money and he was instructed to get more money than he did, the chances are, 99 out of 100, that the rates that would pay the increase would not be the low commodity rates. He would go after the rates that could stand it. He would be afraid to tax it on to the other rates because that would put them out of business entirely.

Q. That would be good railroad business?

A. That would be sound logic.

Q. That might change the relation between state and interstate that Mr. Nay speaks of?

A. I don't think it exists, so you can't change it any.

Q. Now, Mr. Bee, from your knowledge and information 2906 of how revenues are derived by the railroads from the two classes of traffic, state and interstate, I wish you would state your opinion of using those revenues as a measure to divide the costs of

the service, state and interstate.

A. I think it is more than unfair to take the revenue basis to divide the cost of service, because the revenue basis within itself has already added to the state business—the rates have already added to the state business an added charge. They include within themselves an extra cost for doing business, and this can well be shown by the comparisons that I got from the railroad's exhibit 26-I believe that is Mr. McPherson's.

Q. No, that is Mr. Johnson's.

A. On less-than-carload freight, leaving out trans-state entirely, it shows that 20,573 tons were handled, interstate; 8,031 tons were

handled, state.

Using the factor suggested by Mr. McPherson in his testimeny, of five tons per car, of less-than-carload freight, this will give 4,134 cars moving an average distance of 109.53 miles for interstate business, and 1,602 cars moving an average distance of 57.18 miles for intrastate business.

It is shown that the car mileage of state business is 16.8 per cent of the whole. (I am entirely disregarding trans-state business

compilations.)

The revenue received from these two classes of freight was 2907 about 30 per cent, for the state business. Now, although it performed 16.8 per cent of the actual car mileage of the two classes of freight, it paid 30 per cent of the revenue, and to divide the expense upon that basis you are going to make this 16.8 per cent of the freight, the actual car mileage, pay 30 per cent of the expenses.

If you will take the excess mileage of these interstate cars, as compared with the state cars, we find that the excess is 361,305 car miles, and this, at the Missouri Pacific rate for empty cars, of ten cents a mile, would give \$36,130.50, if these cars had been handled For new cars going somewhere else they would receive for that service \$36,130.50, or more revenue than the state business That is merely the excess of empty car mileage over brought in. the state car mileage.

Further than this, the average revenue received from this inter-

state business was 33,230 mills.

The average haul of state business was 57.18 miles.

This secured for the railroad companies, on the interstate business moving the same distance that the state business did, a revenue of \$1.90 per ton.

From state business moving the same distance, they received 67.275 mills, or \$4.84 per ton, showing an excess that state freight paid over interstate freight, moving right along the same distance, of \$2.94 per ton, which would take care of all the extra cost of state business and leave a whole lot besides.

Q. These gentlemen that testified here, talked about this lessthan-carload business being the most expensive business the railroads handle?

A. There is no doubt about it being the most expensive business not the state less-than-carload, but the less-than-carload business is without a doubt the most expensive business a railroad ever handles, and it realizes less profit on that in the long run than it does on any of the business. But when you take into consideration that every time a pound of state less-than-carload business is delivered there are two pounds interstate less-than-carload handled along with it, and under the same conditions.

If all less-than-carload business, interstate, was handled from St. Louis to Little Rock, the conditions might be different, but if you will take a shipment destined from St. Louis to the first station north or south of Little Rock, on the Iron Mountain, or Fort Smith or any other point you please (outside of a terminal point), you will find that that business is brught into Little Rock in what is called a "package car" and is there unloaded and checked into an-

other car, and proceeds out the same as does a state shipment. 2909 It not only receives the same service at Little Rock that the state shipment receives, with the exception of making out way-bills, but it has received in addition the service of unloading

it from the car it came in.

I have checked these things time and time again-not in the state of Arkansas, of course, but in other states; in Oklahoma, Misouri and some in Kansas, but most of my investigations have been in Oklahoma, and I have found that trains proceeding northward from the heart of Oklahoma carry more freight in their local peddling trains, which originated at points north of Oklahoma, than they do of freight that originated in Oklahoma. It has simply been brought there in a solid car, split up and then going back for distribution, making a back-haul and receiving exactly the same service that the state less-than-carload is receiving, with the exception of making out the way-bill at the original Oklahoma point, but to counteract that they have unloaded that freight and checked it at that station.

Q. Which would be a heavier expense?

A. More liability and more work attached to it.

Q. The substance of that is, that while this class of freight, lessthan-carload, is the most expensive to handle, this revenue derived under the state less-than-carload is 30 per cent greater?

A. It is more than that. It is thirty per cent for the entire run as compared to 16 per cent for the entire tonnage.

2910

Q. I want the rate per ton per mile. A. It is almost double, 33.230 against 67.275.

Q. In round figures, they have got double the amount of revenue for the state less-than-carload that they have for the interstate less-than-carload?

A. Yes, sir; per ton per mile.

Q. Now let us come to the carloads: is there any difference in the

cost of them, any such difference that you have got to divide it

on the revenue theory and then add 200, 300 or 400%?

A. There is a very slight difference in the cost of handling the business. Of course there is a larger per cent of state business handled on local trains than there is interstate business handled on local trains, but there is not a larger per cent of the local train that is state business than is interstate business. One often makes the statement, without intentionally deceiving those who are sitting around and listening and interested, that the percentage of state freight exceeds the percentage of interstate freight. So it does, as to the whole, but it does not exceed that part which is loaded on the local train, and that is the only thing that figures in the expense of that local train which is without a doubt the most expensive train run over the road.

Q. How much of the switching is done for the through train by

the local train?

A. Virtually all of it. All cotton is picked up and car-2911 ried to a division point, at least. The through train sets out cars at a terminal point and the local train takes them out to their destination.

The local train sets the empties for the grain and for all of that movement and brings it back into the terminal and gives it to the other train. But for a local train it would be impossible to run There is no question about that. They might run through trains. through trains in Arkansas-in Missouri, without a local train in Missouri, but if they did they would have to have them in Arkansas. They might cut them out of one state, but they could not operate through freight trains unless they had local freight trains.

Q. I will call your attention to another matter that is in evidence and ask you if you know anything about that: that is the lumber

traffic:

It is in evidence here that logs are hauled to a sawmill in the local train. They are to be manufactured and shipped out to St. Louis and outside of the state. They are carried sometimes to the nearest division point on local trains, and sometimes on the local train directly to the saw-mill point: are you familiar with that situation?

The through train handles nothing except freight that originates for it at big towns, unless in exceptional instances

if there is a carload of perishable merchandise for some small jerk-away station. The through train may get in-2912

structions to stop there and get that; it has been set outwhat we call "first out" at the end of the track; they have to make one cut; they pick it up and then go ahead. That, however, is exceptional.

The local train is supposed to clear up its division and get everything into the terminal, north or south or west, whatever direction. Q. The local train is clearing up the way for the through train

to go out without any interruption?

A. Yes, the local train lays on the side until the through train gets through. The through train has a time-card right which the local train has to regard and has to observe. She starts from one station

to another and finds a little more work at a siding than she expected; her time is up; she cannot make the next station. The result is she goes into a "hole" and stays there for one, two or three hours, waiting for the through train to come along, sometimes having a man walk to the next station to telegraph-

Q. It is sort of a "beast of burden"?

A. Yes, and it is the one that you can never put the last straw on the camel's back and break it.

Q. Is it serving state and interstate, both? A. So inseparably that you cannot find it.

Q. I would infer from some of this testimony that it did not serve the interstate?

2913 A. The man who testified to that either did not know or was not fair.

Q. Of course he was fair. He was going on a theory, probably. A. A' man who has ridden in local freight trains knows the work that they have to perform.

Q. Now, Mr. Bee, have you made any examination of this trans-

state proposition?

A. I have gone into it thoroughly.

Q. I want to call your attention to the fact that in this case the tons per mile of trans-state, on the Iron Mountain, is fifty one and some fraction; the tons about thirty three per cent of their traffic.

The Cotton Belt is a little higher, forty four in tons and about

sixty four in ton miles:

Some of these gentlemen have thought that that trans-state business went through the State like it was on a bridge. Occasionally they would strike a pier and change an engine and caboose, but the train stood out there on the main track-or maybe took a siding while they changed the engine and caboose and shifted on through, and that was the way that trans-state traffic was conducted. They say it did not use a great many of the facilities the other traffic used and that it was the least expensive of all the freight handled, and was very profitable and remunerative,

2914 I will ask you if you have made any study of that condi-

tion of affairs.

A. I have.

Q. I wish you would state what you found in it.

A. I found in practice that the trans-state trains are seldom run. There are few roads that can afford to run those trains that are

known as exclusive trans-state trains.

A train will start out of St. Louis or Kansas City or some other point, with all of the red ball freight—that being the highest class of freight a railroad handles—that there is in the yard. If there is not enough there in the yard to make out a red ball train, they put in green ball, and anything else to make up their tonnage. They proceed South until they come to a point where there are some more cars of red ball freight. They immediately reduce by putting out their green ball, or common freight, and set in the red ball. continues all the way along the line. Every time they find a car of red ball they reduce a car of green ball, or common freight, and

take in the red ball freight, with the desire to expedite that movement as much as possible.

Q. Is it at division terminals where that change takes place?

A. Mostly division terminals, but it will be done anywhere else that they find it. If it is freight that has to move 2915

they will stop and take it out.

I presume trains going into Little Rock would carry a solid red ball train, that is, I presume a solid red ball train could go into Little Rock which would have fifty or sixty percent of its tonnage for Texas and the rest would divide up and go somewhere else, with the result that other cars would be put into that train. Even if a trans-state train was run through it would necessarily require that prior to its arrival the division terminal of the main line be cleared or left open at least ten, and maybe twenty or thirty minutes before its arrival. The switching engine goes on its way. It has gone to the yard to get the caboose; cleared another track somewhere else for the extra engine to run up on. The change of engines is made. The switch engine must then take the caboose and put it away. The other engine must be put in the round houseusing the facilities of the terminal all the time.

Q. What about inspection?

A. The train lays on the main line as a rule, or on a passing track, while it is being inspected as to the boxes on the train, to see if it is properly oiled, if the packing and the journals are good, and everything is delayed in the yard while that through train is standing there. I have often seen where they were delayed one hour or an hour and a half in the yard and everything was tied

Q. Suppose the inspection would develop that it was a bad 2916

order?

A. The car would be cut out, set on some side track and the train made up again and proceed on its way. Or maybe it would be something that could be fixed and they would jack the car up and

change a journal, or something of that kind.

Q. We had in evidence here from a gentleman in Little Rock who had been a switchman down there for a good many years, who testified that such a train went through there in the five years he worked there—an onion train from Texas that went North. was the only one he knew of that went through on a bridge.

Would what you have testified to be applicable to the onion

train?

A. Absolutely, that onion train would receive that service.

Q. If there happened to be a car in that onion train that was out of order the whole train would be broken up for switching purposes?

A. To set that one bad car out.

There are other trans-state conditions that come in there of what would be trans-state freight. The Fort Smith & Western operates out of Ft, Smith to points in Oklahoma and does a very good business.

The Midland Valley operates from Ft. Smith and likewise does a good business.

Both of these railroads depend entirely upon some trunk line to give them their local business. Their local business from point to point on the line would not be near sufficient to sustain them. It would not start to sustain them. The natural result is that the Santa Fe, having a line parallel them at numerous points; the Rock Island and Frisco also, and the Katy, are not so anxious to make divisions with them as are the lines that do not parallel or meet them at competitive points.

The Kansas City Southern, St. Louis, Iron Mountain are two lines that do meet them at Ft. Smith and who do have joint arrangements with them on traffic from Kansas City and other points. Now, this traffic is all trans-state traffic. It originates in Missouri and Kansas and is destined in Oklahoma, but every bit of that traffic is handled through the terminals at Ft. Smith or some other

points.

In the Southern part of the State I understand the Missouri Pacific secures a lot of lumber which is brought up into the State, transferred to other lines and goes away. The same condition exists at Memphis—for the purpose of this case I understand Memphis is included in Arkansas.

Q. That is right.

A. And all of these conditions bear burdens upon trans-state traffic.

Cotton originates in Oklahoma; is brought to Ft. Smith is com-

pressed and goes out on the Missouri Pacific.

2918 Cotton seed meal, hulls, originate along the Midland Valley and Ft. Smith & Western up into Ft. Smith and go North and South via the Missouri Pacific and other lines.

All of this freight is trans-state, but it all uses the terminals at Ft. Smith or at the junction point wherever it is delivered to the

connecting lines.

I notice Mr. McPherson said in his testimony that no trans-state express was handled in Arkansas, that it was merely overhead and went through. The same condition exists on trans-state express as exists on others.

Q. Let us illustrate that Ft. Smith & Western situation there: Take some point on that, that had a shipment through to Boston:

What would be the logical line for that to go, say cotton?

A. Well, if the Missouri Pacific get there and hustle that traffic the natural result is if the soliciting agent can secure it it is going to come into Ft. Smith and routed North via the Missouri Pacific.

Q. Compressed at Ft. Smith and carried on to Boston over the lines of the Iron Mountain and connecting carriers?

A. And its connecting carriers.

Q. What is the practice about scaling or weighing?

A. There is a feature that will come in on trans-state 2919 business. The rules of the railroad company are that all freight should be scaled at the first track scales. In business that originates in Kansas or Missouri, going into Arkansas; originating in Texas or Louisiana going through Arkansas, which originates North or South as the case may be, coming from Louisiana, Texas or Kansas and Missouri, would be weighed at the first

scale in the State.

Q. Now, to illustrate that: there is a large lumber movement from Northern Louisiana, North of Monroe; it passes on to interstate points in trans-state movement and is scaled at Dermott or McGehee—Dermott would be the first scale: there is quite a tonnage North of Monroe:

What handling would that trans-state lumber get?

A. On account of its location, I imagine McGehee would scale most of that lumber, which would be scaled in Arkansas. The

rules are to scale at the first scale track.

Q. I think there is a large cotton movement from Northern Louisiana down there, very considerable, that the compresses at McDermott—or McGehee would be the first compress point—

A. They would not scale cotton.

Q. I am talking about compression.

A. That would depend on the traffic arrangements, but it would be compressed at the first compress.

Q. The usual rule is to compress at the first point, is it

2920 not?

A. At the first point unless there is some exceptional con-

dition.

Q. There seems to be some use, then, in trans-state business of State facilities, rather than going over on a bridge, as you have found it?

A. Yes, and I have found that the trans-state trains are very heavy users of terminal facilities within the State, very often. I have watched it very carefully.

Q. Now, passing to such trains as you spoke of, like Mr. Mc-Cutcheon told about in regard to the onion train; what is the usual

way that that trans-state train there is handled?

A. There is another expense that comes in. If Arkansas destined all of their own freight that came in there—there was no transstate—if everything has its destination within Arkansas it would be unnecessary to have the large terminals they have and to have the long passing tracks that they necessarily do have. There would be numerous operators who would not be maintained for night service, and incidental expense of that kind that would not be borne except for trans-state trains.

The trans-state freight is—the through freight is the long freight. It is the freight that is carrying the most business and the result is that it uses the long track for passing. They have got to have longer tracks in order to pass than if simply handling local trains, in order to allow these trains to pass without serious delay.

2921 They keep telegraph operators at closer points.

Q. Do they ever put out passenger trains too?
A. Sometimes they do, but not as a rule. That is an exception

when the passenger goes in the "hole" for the freight train.

Q. What about these night operators? Do they run the local trains at night?

A. Not unless they have over-time work; those are exceptions.

Q. Before we get away from that Ft. Smith situation; I suppose you are familiar with the fact that Ft. Smith is a large furniture manufacturing center?

A. I understand it is. I understand a lot of lumber goes there that is sawed up and made into wagons, and wagon material, and

brought back.

Q. What about other shipments, say to Tennessee or Alabama, or lumber that originated in Oklahoma?

A. It would be trans-state originating in Eastern Oklahoma.

Q. That can be done under rough material rates?

A. Yes, they do that under milling-in-transit rates, I think. I understand they have some in effect. I don't know the extent of them.

Q. Are you familiar with the oil movement, Mr. Bee?

A. Generally speaking, yes, sir. Q. How is oil usually handled?

A. Oil is a commodity which is handled peculiarly. Certain days in the week are specified as "oil days" and on those days the railroads move what is called oil cars. That is to prevent damage to other freight by forcing them to handle oil and loading it in the same car with vegetables. I have heard some statements that the smell of the oil would permeate sacks of flour and such things as that and absolutely ruin them. It would get up against the dry goods, run through the boxes and ruin the silk and dry goods. For that reason the Commissions in most States have permitted the railroads to designate certain days in each week on which oil trains should move and not force them to move it on other days.

Q. It seems in Arkansas they are complaining about being re-

quired to move it certain days.

A. I don't see where their complaint comes in. It would be a penalty upon them if they were forced to move it every day. It would not be a penalty, but if the Commission grants them certain days in which they can ship it, they are doing the railroads a favor and are avoiding the danger of ruining other traffic. If they should be forced to furnish their own equipment—

Q. I am not speaking of oil trains.

A. Well, they call them oil trains; they are oil cars.

2923 Q. I suppose you have a much heavier oil movement in

Oklahoma than we have in Arkansas?

A. They speak of them as oil trains. They are not. They mean the days on which oil should be carried. There is no such thing as "oil trains," except the trains carrying fuel oil, to the refineries or places of that kind, to the places of consumption.

Q. What is the difference in the terminal handling between one

of these through trains and a local train?

A. At the terminal?

Q. Yes.

A. Why, the difference is simply this: that the local train when

it comes in has already done its switching; its cars are all made up in order, and when the switching engine in the yard gets hold of a local, all it has to do is to cut the cars out. They are already in order—the red ball in one place, the green ball and other freight all broken up. That is the requirement that the local train shall bring its cars in in that way; while a through car comes in in the condition as it leaves the previous point. It is generally made up at the previous division or terminal point—and as near that condition as possible, but the services are virtually the same. They have the distributing of these cars around the different tracks, set

the distributing of these cars around the different tracks, set them out and fill them to make a new train; set them away for the next morning; take them around to the different in-

dustry tracks.

I should say that a through train going into a town like Little Rock, setting out its entire train, and a local train going into a town of that size, the through train would have three times as much work on it as a local train would, because more cars would be destined to Little Rock and more to be delivered.

Q. After considering all of those various phases of this question, I wish you would state your opinion as to what, if any, is the extra

cost of doing state over interstate business.

A. That is a hard problem to answer, Judge Hill. I have tried to come to some positive decision on that basis. The main factor in state business over interstate business, that I have been able to find, is one additional terminal expense.

Q. Take that condition in Arkansas, about the cotton, lumber and grain we were speaking of this morning, where there were so many

extra handlings of the interstate freight:

A. That would more than offset it.

Q. There is another proposition in this case—I don't know whether or not your attention has been called to it—about Fort Smith and Memphis being interstate points and all of that traffic carried as interstate shipments?

A. That creates a lot of traffic that has double the service in the state, and possibly Memphis and Fort Smith would handle as much traffic to points in the state of Arkansas as would the entire state, with the exception of Pine Bluff and Little Rock.

Take those out of the state for interstate shipments, and the business from Fort Smith and Memphis would possibly equal all the rest of the business.

Q. Taking the general survey of the situation-

A. I mean less than carload business.

Q. —what would you say of the fairness of dividing the expense between state and interstate traffic in the state of Arkansas on the basis of the revenue received from each class of traffic, and of the revenue on the interstate being apportioned to Arkansas on a mileage pro rata—on the ratio of the main line mileage of the Iron Mountain?

A. I would say that the railroads were getting more than what

they were entitled to.

Q. You are referring to the revenue without any extra cost?

A. Absolutely.

Q. Why do you think they would be getting more than they are entitled to?

A. Because right there, in the example that I worked out, they are getting \$2.94 a ton more revenue from state than interstate freight, the only additional service being one terminal; while their entire revenue from interstate freight terminating in Arkansas is

but \$1.90, and they are receiving an additional here of \$1.04 2926 more for the extra terminal than they got for the entire

handling of the other shipments.

Q. I believe that example was on the less than carload?

A. Yes, sir.

Q. I want to give you approximately the figures here: on the revenue per ton per mile, 12 mills for state and 6 mills for interstate.

A. The same conditions would work out. It is two to one, the

same as this other.

Q. Those are not exact. I am using round figures on it: that would more than take care of any extra cost, as I infer from your testimony?

A. It would.

Q. Now, if you divide the expense in proportion to the revenue, you apportion double the expense to start with: is not that a fact? A. That is a fact.

Q. That would be more than doubling it after you have already taken care of that expense in that rate?

A. Yes, sir.
Q. I want to call your attention to a situation that is in evidence here by the railroad accountants:

After the injunction was obtained in this case and the railroad went out of the business of fixing rates, the railroads readjusted their rates, both state and interstate.

2927 The third month following their free hand in this, it was shown that the Cotton Belt—in the month of January 1909 increased their interstate revenue nine and a fraction per cent, and their interstate revenue ninety-six and a fraction per cent, per ton per mile:

If a calculation was then made as to the amount of expense that would be apportioned to the state, where would it leave the state of

Arkansas?

A. If it was continued on indefinitely, the intrastate business would soon pay the total expenses of the road, on a revenue basis.

Q. What do you think about this relation or "parity" as some of them called it, between the state and interstate rate? When they had a free hand they increased their interstate rates 9 per cent and their state rates 96 per cent.

A. I think that is just as much of a parity as ever existed between

state and interstate rates.

Q. I said "rates": it was the revenue?

A. I think that is just as much of a parity as ever existed in rates, and any man who tries to create that parity between the two is going to get himself where he cannot get out.

Q. It is not there?

A. It is not there. It is impossible.

I want to add there that the traffic men themselves say, the longer you haul the shipment the cheaper you can 2928

handle it per ton per mile. That is a misunderstanding. don't think any traffic man will go on the stand and say you can haul a shipment 200 miles cheaper the second hundred than the first hundred. But the fact is that by reducing the rate per ton per mile, you are still paying your terminal expense, and the cost of the haul just the same, 100, 200, or 300, with the exception of the terminal expense; and of course the longer you have to go you can exact a smaller fraction on each mile to pay that terminal expense with, and that is the only reason that I know of why it costs less to handle the shipment a long distance than a short distance. After a shipment goes over one terminal or one division, it costs just as much to handle it-

Q. You mean the cost per ton per mile?

A. Yes, or the cost as a whole; any way you want it. The terminal expense at origin and destination has to be taken care of, and if you can haul that shipment 500 miles you can take a less figure on each mile to pay those two terminal expenses, than if you are going to haul it only 100 miles. The actual cost of transportation is just the same, if the condition of the road is the same.

Q. Suppose this factor enters into it: suppose the longer the

haul, the more intermediate carriers?

A. That is largely true.

Q. And the rate is thinned out by every division?

2929 A. It continues to thin all the time. A shipment passing through interstate from road to road will stand a heavier terminal expense, right here in Kansas City than it would cost to be delivered in Oklahoma. I understand that the expense there has been figured out at \$4.80 or about that.

Q. Do you refer to St. Louis or Kansas City?

A. I meant Kansas City, \$4.80 there, from line to line. have never contended it cost over \$2.60 to deliver freight in Oklahoma, at our largest and most expensive terminal we have.

Cross-examination of Mr. Bee. 2930

By Mr. MOORE:

Q. What is your age, Mr Bee.

A. Past 30; something over that.

Q. Do you mean it is under 31. A. Yes, sir.

Q. I beileve that you stated that your first connection with railroad work was as stenographer to the Superintendent?

A. Yes, sir. Q. What road was that?

A. The Mexican Central. All of my railroad experience was on the Mexican Central.

Q. Where is that located?

- A. It runs from El Paso, Texas, to the city of Mexico; from Irapuato to Guadalajara, which branches from Torreon to Saltillo.
- Q. It will not be necessary for you to go into those details. It is a Mexican railroad?

 - A. Yes, sir. Q. How old were you when you went into the service of the superintendent of that road?
- 2931 A. Less than twenty.
 - Q. That was about ten years ago, then?
 - A. Eleven years ago.
 - Q. Who was the superintendent, Mr. Bee?
 - A. Mr. E. S. Banks, was the first one.
 - Q. What was his position?
 - A. Superintendent.
 - Q. General Superintendent?
 - A. No, superintendent; division superintendent.
 - Q. How long did you work with him in that capacity?
- A. I think I was in with Mr. Banks three or four months and then I went to Mr. Ben Collins.

 - Q. Who is Mr. Collins? A. Division superintendent also.
 - Q. Did he succeed Mr. Banks?
 - A. On another division.

 - Q. How long were you with Mr. Collins?
 A. Something over eight or nine months.
 - Q. What was your next service after that?
 - A. With Mr. Jennings, the assistant superintendent of machinery.
 - Q. And what was your position with him?
- A. I was first in the office as his private secretary and next I had charge of what was known as "1315 reports"-delays on the road. And from that I had charge of the work in the shop,
- 2932checking engines into the front shop or back shop; taking the engineers' reports and designating the work to be done on them and issuing orders for supplies and material; checking the work nightly to see it was being gotten out.
- Then I was in the office as his chief clerk for probably 21/2 months.
 - Q. Were you acting as Stenographer during that period also?
 - A. Only for about the first six weeks.
 - Q. What did you say was the name of that party?
 A. Mr. Jennings.

 - Q. I don't recall what position you said he held?
 - A. Assistant Superintendent of Machinery.
 - Q. Where was his-A. Mexico City.

 - Q. What were the duties you performed for him?
 - A. I was his secretary.
- Q. I suppose that was to attend to his correspondence. How long did those duties continue?
- A. I think I was doing his actual work about six weeks, if I remember correctly.

Q. Then what was the change?

A. I went there and took the 1315 reports.

Q. What are they? A. The delay reports.

Q. Delay of what?

A. Delay of engines on the road. 2933

Q. What did you have to do with it?
A. I had to take those reports up and see what the delay was, going to the transportation department to see what the conductors reported was the cause of the delay on those particular trains, and investigate the general cause of the delay. If I thought the delay was too great, I would take it up with the engineers personally and demerit them for the delays-and such work of that nature.

Q. To whom did you report?

- A. I reported direct to the general manager, in Mr. Jennings' name. Everything from the department was reported in his name.
 - Q. How long were you engaged in those duties? A. If I remember right, three or four months. Q. What was the next duty assumed by you? A. I then had charge of the shop work.

Q. Were you still with him?
A. Still with him all this time.

Q. What were your duties in connection with the shop work? A. As I stated, checking engines in and out of the shop; taking engineers' reports of the work that had to be done on them; making orders out to the shop; drawing the necessary material.

Q. That was checking engines in and out for repairs?

2934 A. Yes, sir.

Q. How long were you engaged in that work?

A. I don't remember those months exactly, Judge. I would say about the same time as on the 1315 reports.

Q. About three months?

A. Three or four months, I should judge.

Q. What were your next duties?

A. I was with Mr. Jennings entirely, doing whatever he wanted me to do. Most of that time was spent in checking the power on each branch of each division; seeing that there was sufficient power on one division to move the business given us by another divis-

Q. Mr. Jennings was division superintendent?

A. No; assistant superintendent of machinery. He had charge of all the territory north of the half line-I won't mention those Mexican names because they will confuse the record; the superintendent of machiney had charge of the line north of that—Aguas Celientes

Q. Is that the time to which you referred when you said you were

acting as handy man for the superintendent?

Q. That is, assistant superintendent of machinery?

A. Yes, sir.

Q. Where were you located at that time?

A. Our headquarters were in Mexico City. We were 2935 there about just a fraction of the time at the different shops and on the road all over.

Q. What were your duties at the shops at each place?
A. I was just into the shops and out of the shop, taking the power into and out of the shop.

Q. You mean checking engines?
A. Yes, and their capacity and the standard at which they were If an engine was rated at full standard and I found on checking it up that she was doing only 3 of the work rated-

Q. What did you do with that information after you had it? A. It was merely to check the engines back and forwards.

Q. That was reported to some one?

A. No, it was simply to change the engines, that would be the result of that. It was reported to him, of course, all information reported to Mr. Jennings.

Q. And any change that was made, was made to orders given by

Mr. Jennings, I suppose?

A. Oh, sure.

Q. You were acting in the capacity, we might say, of a clerk or a sub-ordinate of Mr. Jennings?

A. Absolutely.

Q. What were your duties on the road?

A. The same thing.

2936 Q. How long were you engaged in the discharge of those duties?

A. I was with Mr. Jennings something over a year and the balance of the time was in that work.

Q. Then what was your duty?

A. I then went to the traffic department. Q. Whom were you employed by there?

A. Mr. T. F. Ryan.

Q. What was his position?

A. I was in the office as his secretary.

Q. What was his position? A. General Freight Agent.

Q. You went in as his secretary?

A. Yes, sir.

Q. And you attended to his correspondence, I suppose, and performed such duties as a secretary usually performs?

A. Yes, sir.

Q. How long did you remain in that capacity?

A. I should say $2\frac{1}{2}$ or 3 months.

Q. Did you then give up your work as secretary?

A. No, I then went to the Traffic Manager.

Q. You left that department? A. No, just merely from one room to another.

Q. You just passed through a door?

A. Yes, sir.

Q. What was the change?

A. None at all; a step up in salary. 2937

Q. You were working for the same party?

A. No, for the traffic manager.

Q. You did the same class of work? As secretary? A. Yes, sir, the same thing.

Q. Who was the Traffic Manager?

A. Mr. H. Lawton.

Q. How long were you with him?

A. About three weeks.

Q. Then what happened to you? A. I was promoted to the rate desk.

Q. What were your duties at the rate desk? A. At first it was to learn the rate business.

Q. Whose superintendence or direct employment were you under at the rate desk? A. Mr. Lawton was the head of the department. Mr. Ryan was

really in charge of the department.

Q. How long did you act in that capacity as rate clerk?

A. Well, I went into the office-I think I was the fourth assistant rate clerk for about two weeks. Then I took the third assistant's position. I was there probably six or eight weeks. Then I took the second assistant's position. I was there some months-I never kept track of the time—and then I jumped to the chief rate clerk's position, and from that to the chief clerk's position in the traffic

department.

Q. What were your duties as rate clerk? 2938

A. Checking rates and checking way-bills that might came into the office. At that time we had to check all United States railroad bills; advising the agents over the state the proper rate to apply.

After the general freight agent or the assistant agent had been into conference, the report of their conference would come back to us, and we would check in the different rates, United States Mexican lines, the Water Mexican lines and our own lines.

As chief rate clerk and chief clerk, I would talk to parties who came in and wanted special rates. I would investigate their business and decide on the rate if I thought a new rate was due them it would be submitted to the general freight agent for his approval and put into effect.

Q. What do you mean when you say you "checked" rates? What

does that cover?

A. Adding combinations of locals to find if any of those rates were lower than our through rates. To check up our tariffs in connection with other lines' tariff and see that our rates were in line; that we were not charging higher or lower than the other roads were; making up figures for new rates desired in comparison with the United States or other foreign lines; general work of the traffic department.

Q. Were there competing lines in the territory?

A. Some of our territory was strongly competitive.

Q. How long were you engaged in that service, Mr. Bee? A. I couldn't tell you, Judge, the exact number of months or days that I was engaged in that service, for this reason; I never kept any track; I would be backwards and forwards.

Q. You spoke a while ago about an advance of salary when you

went from the superintendent-

A. No, from the general freight agent to the traffic department.

Q. What was your salary before and after that change?

- A. I think I was drawing \$225 with Mr. Ryan and I got \$270 with Mr. Lawson.
 - Q. That as on the silver standard? A. That as on the silver standard.

Q. You were not paid on the gold basis?
A. No, sir.

Q. Your work was in the traffic offices, was it?

A. Entirely; all of that work was in the traffic department.

Q. Where was that? A. In Mexico City,

Q. What did you do after you ceased to be chief rate clerk? A. I was promoted to the Commercial Agent at Torreon.

Q. What were your duties there?

A. To solicit traffic and watch freight conditions. We had peculiar conditions as commercial agents in Torreon. We had to make reports monthly upon the conditions of service of re-

ceiving; conditions of service our competitors were receiving; the time made by our lines and by competitors' lnes; general solicitingwork of that kind,

Q. Did you have any change of salary when you made that change

in occupation?

A. I was getting \$300 a month. I don't remember when the change came. Besides that, liberal expenses were allowed me.

Q. What was that equivalent to in American money?

A. At that time about \$167.

Q. How long did you act as commercial agent? A. I believe at Torreon about nine months.

Q. Where is that place, what part of Mexico?

A. It is about 300 miles south of El Paso, possibly four hundred. We handled kilometers. I believe the dis- is 642.

Q. What was your next experience, Mr. Bee?

A. General Agent at Monterey.

Q. What do you mean by "General Agent?"

A. A change in title, with virtually the same duties.

Q. Practically the commercial agent?

A. As far as work is concerned.—The only thing is when you are a commercial agent you seldom have anyone under you, but as general agent I had three, and sometimes four soliciting men 2941 under me.

Q. In that position, where were your labors confined to? A. The entire northern part of Mexico. I had jurisdiction over

the commercial agent at Torreon and the general agent at Saltillo, whose title was general freight and passenger agent.

Q. How long were you engaged at that?

A. I don't think they left me there but four months.

Q. Your business was to get business to come there, I suppose?

A. And watch the general operations of the road in my territory.

Q. What do you mean by that?

A. Watching the movement of trains to see that we were making time; making reports to the general and traffic manager relative to unnecessary delays and finding out the cause—

Q. That was for the purpose of seeing that your customers got sat-

isfactory service?

A. That was the idea of that, entirely. Q. What was your next change, Mr. Bee?

A. Our assistant general freight agent, Mr. Synder, who was in charge of the United States traffic, failed in health and he was promoted—changed at least, not promoted, to the position of agent at either Los Angeles or San Francisco, and this left the Assistant General Freight Agency open at Mexico City. I was then changed

with Mr. Bryant, who was commercial agent at Mexico City.

He was put to be general agent at Mexico City.

He was put to be general agent at Monterey. I was transferred to the commercial agent at Mexico City, and for the balance of my time, my title was commercial agent at Mexico City; though very little of my time was spent as such, I was at Mr. Snyder's desk from that time until I left the service of the road.

Q. What year was that?

A. I went there in 1906, if I remember right, either the last of 1906 or the first of 1907. I don't remember the dates because I kept no track of them at all.

Q. You were there how long?

A. In the neighborhood of a year.

Q. Did you have any change of salary when that transfer was made?

A. I did, fifty dollars.

Q. Your salary was then \$350 in Mexican money?

A. Yes, with \$5.00 expense a day, while I was in the office, which made a great deal more.

Q. You spoke of a position as acting assistant?

A. Yes, when I was acting—I was doing Mr. Snyder's work during the entire year.

Q. During his absence?

A. He was gone for a year and I was promised by Mr. Ryan if I would stay until January 1, 1908, I would be given the position, but I left there—I resigned the 18th of December—although my resignation did not take effect until January 15th, I understand.

2943 Q. What were your duties during that year?

A. I had charge of all the soliciting forces in the United States and Mexico; the soliciting of business and the general work of watching our freight service as compared with the other railroads; checking in pool reports with the other lines, and making such rates on United States traffic as was necessary also submitting the same to the general freight agent for his approval.

Q. Those salaries probably go into "traffic expense" under Mr. Wharton's division?

A. You will have to ask Mr. Wharton about that. I refuse to

answer any questions as to accounting.

Q. Why do you not think you should go into the subject of ac-

A. Because I know nothing about it. I might have some general ideas, but they are what I have picked up in my work and I have not worked a day at it.

Q. You have no experience in accounting?

A. I could not follow it for a minute and I don't care to answer any questions relative to accounting.

Q. That was the termination of your service with railroads, was it? A. Yes, I received a telegram on the 18th of December, 1907, offering me this position with the railroad commission of Oklahoma.

Q. When did you enter upon the discharge of your duties with the Commission?

A. My salary commenced December 26th-

Q. When did your duties begin?

A. I was there that day. I made a trip over into Texas and Arkansas, and, I believe, Wisconsin. I believe I went into Minnesota for the Commission, before I went into the active duties. I had to stand an examination.

Q. That was a civil service examination? A. No, just an idea of the Chairman.

Q. That was Mr. Love?

A. Yes, sir.

Q. When did that commission get organized and begin its regular work?

A. I haven't the least idea. The statehood was on November 17th and when I got there on December-I really got there about January 1st or 2nd, settling down to work, and there was some proposed order issued when I got there. In fact, I believe there was a hearing on December 2nd or 3rd under the 30 day clause. I presume the first order must have been issued-January, I meant to say-the first order must have been issued in December, as the first rate went into effect either in February or March.

Q. What were your duties in connection with the Oklahoma Com-

mission? I will first ask you what was your title?

A. Well, in charge of the rate department; an official designated on the records of the Commission as "Rate expert."

Q. What were your duties as Rate Expert?

A. It is very hard to answer those questions so one can 2945 understand.

I have charge of the rate department. With my assistants I keep a record of all the tariffs, both state and interstate, affecting Oklahoma.

We are constantly checking the rates that apply in Oklahoma as applied in other states; asking the railroads to change such interstate rates affecting Oklahoma as we find inconsistent with other interstate rates; filing suits before the Interstate Commerce Commission; and making rates in Oklahoma-of course that is done by the Commission.

I furnish the Commission with the figures and all the factors.

I appear for the State and attend all examinations. A rate is proposed to be checked in by the state. The railroads contest it. appear for the State and show the reasons why the rates should be checked in.

Q. You mean that you conduct a hearing— A. No, the Commission conduct No, the Commission conducts the hearing, but I appear as the State's witness and also as the attorney for the State in some instances; in both capacities; both as a witness for the state and as an attorney for the state.

Q. What is the character of the litigation you institute before the Interstate Commerce Commission? On whose behalf is it?

For the people of the state of Oklahoma.

Q. Are the complaints of the business men of Oklahoma 2946 made through your Commission?

A. Very largely, yes, sir,

Q. Who represents their interests in those matters?
 Λ. The Commission.

Q. Do you act for it? A. Very often I have acted as attorney and witness, both.

Q. Is there very much of that?

A. In the way of formal and informal together, there is considerable.

Q. How much of your time does that consume?

Λ. Oh, a question of that kind would be hard to answer, Judge, because I have some assistants in there who work those papers up and when I get them they are all-I get them first in the rough shape. I make a notation across the face of them of what I want and they came back worked up in proper shape.

Q. In a general way, that is the character of the duties you dis-

charge as rate expert?

A. To a certain extent.

We have checking of Pullman rates. We are checking every character of rate that affects Oklahoma, and in addition to that we are making station checks for the state.

Q. What are those?

A. Checking station agents to see the increase and decrease in the business, and the manner in which the business is handled. 2947

I have inspectors to check up and see if the Commission's

orders are complied with. I make regular trips on freight trains through the state. I have my inspectors out at different times during the year making their reports to me; work of various characters, Judge, in a year's time.

Q. Does that work there in connection with the Commission take

up all of your time?

A. Every moment, unless I steal off for a day or two, as a man generally does.

Q. I believe you are now engaged in a rate litigation with the railroads of Oklahoma?

A. I believe the state is, yes, sir.

Q. Are you connected in any way with that?

A. I guess I am connected pretty strongly with it. I was responsible for a lot of those rates-or at least I advised the Commission of them. Some of them I did not appear in at all.

Q. Are you participating in any way in that case, or taking any

active part?

A. Yes, I am preparing data all the time for those cases, although, further than the original affidavits that were filed in the proceeding for temporary injunction, there has been no specific call on me—the Attorney General has in numerous instances called for certain data that we furnished.

2948 Q. You referred somewhere in your testimony to your having testified frequently; was that in this case?

A. No, that was in the Interstate Commerce case. I never testi-

fied in those cases. I made ex parte affidavit.

The Southwestern Shippers Traffic Association vs. the Santa Fe is the case I spoke of. I believe the Missouri Pacific is a party.

One reason, Judge, why it would be impossible for me to advise

you as to the percentage of time spent in any given duties is:

As an example, the other day, I was checking the local freight. With me I had two tariffs I wanted to check up. Between stations I checked those tariffs. At stations I checked the work of the local freight. I would have to have kept a stop watch on myself to tell you what part of the time was devoted to one or the other of these.

Q. Is that a specimen of what is going on all the time?

A. That is an example.

Q. What effect does the increase in the volume of traffic have on

the cost of the handling of traffic?

A. I should judge it would reduce it. That is, reduce the handling of each unit, not the total cost. It would increase the total cost, but it would reduce the cost of handling each unit.

Q. What is the accepted view among railroad operating officials

on that subject?

A. The greater the traffic, the less rate one can afford to

make upon it.

2949

Q. Is the rate that a railroad can afford to charge or a schedule of rates, I might say, to conduct its business successfully, affected by the age and growth of the road as the railroad develops?

A. I think so, largely, Judge. Q. You stated that this figure here-

A. 5 mills per ton per mile.

Q. This index figure was never figured by any traffic man?

A. I don't think today it is used.

Q. What is your source of information?

A. I have heard Mr. Stanley Johnson, supposed to be an expert on matters of that kind— of the Southwestern lines—say upon the stand that the railroads had abandoned it.

Mr. Vorhees, General Agent of the Frisco; Mr. B. M. Flippen,

Traffic Manager of the Missouri; Mr. J. R. Koontz—one of the brightest railroad men of the day—I have heard these man say so.

Q. Did they say why it was abandoned?
 A. They said it was unreliable.

Q. Did you understand that it was abandoned altogether or abandoned as the traffic-

A. I understood that the figure had been abandoned to

its use in making rates. 2950

Q. On what occasions did you hear those gentlemen testify about that?

A. I heard Mr. Johnson and one of the others testify before a

Commission.

Mr. Flippen told me so personally. I was talking with Mr. Flippen about that. The case that caused that discussion was one before the Commission, wherein a vegetable rate was up for discussion and the railroads sent an expert down there who testified that the Commission's rate was unreasonable in that at its lowest point it paid 37 mills per ton per mile, whereas the cost of service was 5 mills. As soon as the railroad heard how their expert testified they came to the front to repudiate the statements.

Q. You stated on your examination in chief, in explaining how these rates were made, that rate makers took into consideration the commodity; the value of the commodity; the points between which commodities move; the competitive conditions surrounding the movement of them and that regard is given to the nature of the

commodity:

What is the object in considering all those elements?

 A. To get all the traffic will stand out of the rate.
 Q. You stated that rates on a low value commodity and one that suffers very little from damage, are made low; while the reverse is true on high rate commodities; that no traffic man would consider the same rate on oil as on sand:

Let me ask you, why would a traffic man consider those elements and those differences as between low and high 2951

grade commodities?

A. For two reasons. First, he would not take oil at the sand rate, even if he could not move it at any other rate, because it has with it certain elements that he knows at a glance, would be entirely too risky to take at such a low rate. He would know that the liability clause alone in there would heap up his rate and that he could not afford to handle it on that account, so far as oil at the sand rate was concerned.

When he comes to take the sand rate into consideration his first thought is to move the sand and he puts as high a rate as he thinks the sand will move under. Very often they check a rate and find that the sand does not move, with the result that the rate is skinned

down a little.

The feature of liability is what I had reference to and the additional feature that he knows it will stand a good deal better rate. He knows that oil at its destination is going to be worth 10, 12, or fifteen cents a gallon, and he knows it is competition and that it has to get here.

Q. That is the element of value?

A. The element of making the rate, and then the element of liability, which will keep him from getting below a certain 1952 figure; no fixed figure, except that he will get what he considers a remunerative rate out of the business.

Q. Is the desire to get a remunerative rate the cause of his taking those elements into consideration? Is that his purpose in doing it?

A. To a certain extent, yes, sir.

Q. And in order that he may determine whether the rate fixed will be remunerative or not, be takes those elemnts into consideration?

A. He cannot tell whether the rate will be remunerative but he can judge as to remunerative return, taking those into consideration.
Q. And he does that and approximates it as nearly as he can?

A. No, not altogether because at times he knows he is not getting remunerative rates, but he has to handle the business just the same.

Q. According to your standpoint, he will get the nearest approximation to remunerative rates in consideration of those different elements?

A. He will not go below that basis if he can get away from it.

Q. Is that not a cardinal rule of action by which all sensible mer are goverened?

A. I don't think there is any reason why a man should ever go below cost of service and that does not say that he stops there and takes that rate that he considers remunerative. If he finds the traffic will bear a higher rate he puts it on.

Q. What does the consideration of cost of service consist of, if it is not the consideration of the very elements you enumerated as those rate making men would consider?

A. They are the cost of service so far as he knows, but the actual cost of handling a given commodity, no rate man knows what it is.

Q. Then it follows from that, does it not, that while the rate-making man has not possessed himself with that degree of knowledge, he does the best he can in view of his ignorance?

A. That is true enough.

Q. And he does take those elements you have mentioned, for the

purpose of trying to get a remunerative rate?

A. He comes along on a long distance interstate haul, and gets 18, 20 or 22 mills per ton per mile, on less than carload; he thinks he is doing pretty good and takes the business at that.

Q. Does he not also consider the length of haul?

A. I say, for a long haul, but he does not know what that is costing to haul. He cannot say he is making any degree of profit.

Q. He will assume though, will he not, that there is an advantage in a long haul, and make some concession on account of the length of haul?

2954 A. I don't think he is presuming there is any specific profit. He thinks it is paying his road and goes on and takes

the business. But when he comes in to make a competitive rate and to meet the rate that is already in, he doed not take those conditions into consideration at all. The only thing he takes into consideration then is, can he get this man into that market, at any rate.

Q. To beat his competitor?

A. No; to get in on the same ground that his competitor gets in on.

Q. In the adjustment of their rates, do the rate making men give

any consideration to the volume of their business?

A. In special rates they do, yes, sir. I don't think they do-

Q. You stated it was an accepted axiom that as the volume increased, the cost diminished: What is the reason for that?

A. I presume it is. It is a generally known fact that where there are twenty cars moved from a given point, you can afford to give a

less rate than for an occasional car.

Q. Would a competent rate man be influenced in the rate he would make upon a given commodity that moved in large volumes, by the fact as to whether he could obtain a reciprocal tonnage and in that way avoid the hauling of empty cars, for the purpose of handling that traffic?

A. I used to think they would, Judge Moore, but I have come to the conclusion that the rate man figures very little on

2955 that.

When I was rate making we used continually to hunt a traffic in the direction of our empty car mileage and were willing to make any rate we could—

Q. So far as your experience goes, that is the case?

A. No, not as far as my experience goes. I said in my rate making with the Mexican Railways it was always our policy to give as low a rate as we felt we could, if we could produce a traffic moving in the same direction of our empty car mileage.

Since I have been with the Commission I have had occasion to request the railroads to do that very thing and have never succeeded in getting them to make a low rate in the direction of the empty

mileage.

Q. You are speaking with reference to the railroads in Oklahoma?

A. And those operating through Arkansas as well.

Q. 1 wish you would give me some of the instances you have in mind, in which you have requested railroad officials to consider the

matter of reciprocal tonnage?

A. It has been definitely ascertained that on all lines leading from Oklahoma south, that the business for the loaded movement is in the southbound direction on Oklahoma lines. We have asked them to give us a less rate from the south to the north, into Oklahoma, than what we had in the opposite direction. They have re-

fused to do this. We have the same rates from Galveston to Oklahoma points, as you have from St. Louis to Oklahoma—that is comparatively on the distance, \$1.30 and \$1.33—which figures about the same rate per ton per mile.

Q. Is not that a different proposition?

A. No, sir: the empty car mileage is northbound and they are bringing up these empty cars and not securing new business. The business is handled through Newport News, but if they gave us a low rate we would get the business running through Galveston.

Q. I do not clearly understand just the position you portray: I thought you were talking about a case in which there was tonnage both ways and you requested some concession on that account?

A. No; your question to me was, that where — is an empty car movement—you did not ask it, but your question implied that where there was an empty car movement in a certain direction, that if a railroad could secure traffic to fill those empty cars—

Q. No; you misunderstood:

My first question was whether a railroad could not afford to make a lower rate where that condition prevailed, and then I asked you if that was not a consideration that a rate making man would consider: you stated it was not, and then you spoke of instances—

A. I stated it was when I was in the rate-making business, but that it was not today, for the reason that the rail-

roads were refusing to do that very thing.

Q. I supposed you had in mind a case where they had

tonnage to move in the opposite direction?

A. It is where they could get tonnage to be moved if they put the low rate in, but in view of the fact that they do not put in the low rate, they can't get the tonnage.

Q. Who are the officials of the railroads to whom you have made

that application?

A. All the lines operating through Oklahoma, with the possible exception of the Missouri Pacific.

Q. Give me the names of the traffic men you refer to?

A. We were in conference with Mr. Koontz, of the Santa Fe, the General Freight Agent; and we were in conference with the Rock Island and the Frisco——

Q. With whom?

A. I don't remember, because one day Mr. Shubert or Mr. Allbright or Mr. Brown might come into conference.

Q. Did you confer with all three of those gentlemen?

A. I say, for the Rock Island it is hard to say, because one day one will come and the next day another will come.

Q. With whom did you deal for the Frisco road?

A. I presume with Mr. Vorhees,

Q. What was the business that they refused to haul north-bound?

2958 A. All commodities.

Q. You mean general freight?

A. Yes, sir; general freight.

Q. Well, do not the railroads carry all the freight that goes

north destined to points their lines will reach?

A. Yes, but if they put in a low rate, they would get freight that does not go north; they would create freight they don't get today; they would fill up those empty cars that are going up light.

Q. What do those cars haul that come back empty?

A. Grain, cotton, machinery and general merchandise for Texas

distribution.

Q. Your proposition was to influence the traffic representative of the railroads to lower the rate on miscellaneous northbound traffic, with the expectation that they would build up an opposite trade?

A. They would.

Q. What was your view about it? A. This—so strong was the view that we organized the Southwestern Traffic Association and the matter is now handled by the Interstate Commerce Commission.

Q. You were proposing to them to make an effort to develop a

traffic down there in that way?

A. Yes, to bring a traffic from the Atlantic seaboard points and bring it by its natural gateway, Galveston.

Q. To divert it from the inland rail lines?

A. Inland sea and rail routes. It moves sea, anyway, to 2959 some of the Atlantic coast points.

Q. To go back: we have gone a good way from the point we

started:

In view of what you have stated in connection with the elements that are taken into consideration-since you have been discussing this subject this morning-with reference to the effect of value; length of haul; liability incident to the haul, the nature of the commodity; and in view of your statement that those matters are considered by traffic men, although you think they have not the information as to what the cost is, I want to ask if you think it is correct that traffic men do not give any consideration to the cost of service in fixing rates?

A. I think they give very little-

Q. Then why do-

A. —consideration to the actual cost. Now, understand me. don't want to be understood as saying that a traffic man is going to solicit a shipment or make a rate on any figure that might come into his head. I don't want to put a traffic man in that light. don't want to indicate for one moment that any traffic man is that much of an idiot. But I mean, he is not figuring what the cost of He does not know that the cost of service represents six service is. mills for 100 mile haul or eight mills for a 50 mile haul. He has

no figures of that kind. He takes a rate and tries to get what he can out of it. He has in his head, probably, an 2960 arbitrary figure that he will not go below, but if he was asked tomorrow to testify as to the cost of service, he would be unable to do so. He is trying to hold the business down so his road can get some money out of it. He is taking business and instructing his men to take business which is paying him enough, or he thinks is paying him enough. He considers he has to take it to keep his trains moving.

Q. And you stated a while ago that he could not give the cost of

service?

A. Or even approximate it.

Q. In the nature of things, it is quantity that is unknown to him,

yet in fixing the rates he regards the cost in so far that he will not fix a rate which is non-remunerative, and he does consider these elements you have mentioned?

A. He would fix that on a new rate and a rate over which he had

the power to make it; there is no doubt about that.

Q. That is where the conditions are normal?

A. Where the conditions are entirely in his power. The other might be a condition where he would not have any power over the rate at all. Some one else might have stepped in there ahead of him.

Q. What is the object of the creation of these Classification Com-

mittees?

A. To assist the railroads.

Q. In what way, Mr. Bee?

A. Why, by specifying certain men to do a certain work that can be done better than by saying the whole should do it.

Q. Is not the classification made on the basis, of the very elements, with reference to the factors that you spoke of awhile ago, as matters that would be considered by traffic men in fixing the rates? In other words, do they not consider in making that classification, the value, weight, bulk; liability to injury and therefore damage liability; all those things? Do not those Committees in making their classifications take those things into consideration for the purpose of creating a classification that will enable the railroad, by applying their rates to it, to create rates with reference to the cost of service, in so far as that cost is affected by those factors?

A. I don't know about the cost of service. They are supposed

to take those factors into consideration-

Q. Do you know why they do that? Why-

A. They are taken into consideration to a more or less extent; the value of the commodity; the shape of a commodity as against another commodity, more them anything else.

I have been in those meetings and listened to a part of the proceedings and there comes in more the question of one article to

another article, than anything else.

I never heard the cost of service discussed—what it costs
2962 to handle a box 14 x 14 x 16, but it was the whole, the nature
in which that box would load, and the liability from loading
other commodities along or beside it. All of those features were
features in the cost of service.

Q. Is not the relation, this relative quality and a comparison between the different subjects of traffic, the consideration of it, the very essence of the adjustment with reference to the cost of service?

A. No, sir, if you knew the cost of service of one, then it would

be.

Q. Let me make myself a little plainer: the Western Classification Committee, we will say, puts a higher classification on glass than it does on sand, does it not? It costs more to handle the glass than it does the sand——

A. That is one of the factors and another factor is that the glass

is much more expensive than the sand and will stand a higher rate, and that is one of the main—liability is one of the factors followed in making the rate, and the value of the commodity is one of the factors. Those are factors which they use.

2963 Q. Do you know Mr. F. O. Becker, Chairman of the

Western Classification Committee?

A. Very well.

Q. Mr. F. O. Becker testified in this case, and he stated in his testimony that his committee, in making up classifications, primarily take into consideration, the density of the article—

A. In other terms, that is its loading capacity.

Q. But that is not all he said, because he said, the lighter and more fragile it is, the more it costs to transport it—page 469—that naturally follows, isn't that the object in making the classification?

A. Yes, the difference between the two commodities.

Q. He says, secondly, the value, because the greater the value, the greater the risk, which enters into the cost of handling and transportation?

A. And he could have added, the value of the commodity would

indicate the higher rate the commodity could stand.

Q. He was asked if the space the article occupied had anything to do with it, and he said it did.

A. That was answered in his first proposition.

Q. He was then asked if the cost of transportation included the transportation, service, and handling and risk incident to handling, entered into the classification made of it, and he said always.

A. I fail to see where Mr. Becker could make that answer, for this reason, that Mr. Becker and his committee are making a general classification applicable over what is known as the western classification territory. Part of that is the line of the Atchison, Topeka & Santa Fe, partially double tracked, and with the highest standard of maintenance, kept to the highest standard of maintenance, over which their engines can pull the heaviest trains with little hardship, and at the same time it controls the

little Oklahoma Central Railroad in Oklahoma, which is built on a heavy grade, and on which engines could not pull a fourth of the tonnage that they could pull on the Sante Fe; if his classification represents the cost of service, I would like to know whether it represents the cost on one road or on the other road.

Mr. Hill: I don't think it is hardly fair to read that answer, without reading his qualification; he says further on, that they have no statistics of the cost of service; I don't think you have put his testimony fairly to Mr. Bee.

(WITNESS:)

A. I don't think that he could answer that way.

Mr. Moore: If it is qualified, I want to get it in here.

Mr. Hill: Page 472 on cross-examination.

(Mr. Moore:)

Q. On page 472, Mr. Becker further stated on cross-examination, in answer to question of how they got the cost of service: "We know

that it costs to transport; that it costs to handle; that the element of risk necessarily enters into the cost; we, of course,

2965 element of risk necessarily enters into the cost; we, of course, do not know the total cost, but all of these are factors in the total cost." Then he was asked if he used per ton per mile as a basis in ascertaining the cost of a given line of road, or through a given country, and he answered "No," that he gave no consideration to that.

Mr. Moore: Anything else you want to call his attention to?
Mr. Hill: Yes. "You know this element of risk exists, and you bring to bear your experience and your observation on that, isn't that a fact?"

A. Yes sir.

"Q. You have no actual figures on that.

"A. No, sir, not definitely.

Mr. Moore:

Q. Counsel for defendant in this case have made some additions since I have asked these questions, for the purpose, very properly I think, of bringing before you another statement of Mr. Becker, that the Committee in making these classifications, does so, in so far as it is possible for them to do it, with reference to the cost of service. Do you agree or disagree with him on that?

A. I agree with him, as I said before, that classification is built upon the relation of the cost between the two articles; it is 2966 not made on the actual cost of service to handle it, and I

don't think Mr. Becker intended that; as between the first and second classes, Mr. Becker is trying, in making the classifications with his committee, to so arrange those two commodities that they bear a relation to each other, but not that they bear a relation to the cost of service, but to each other, and as far as traffic conditions are concerned, the revenue coming from them, he feels that one commodity will stand a higher rate than the other, and it goes in the classification higher, and that is what I think Mr. Becker refers to when he says the cost of service is the basis.

Q. Isn't it also true that traffic men in making rates, are in-

fluenced by the same considerations?

A. To a certain extent they are, yes, sir, not to the actual exact cost of service,—I want to be understood at all times, in making a statement that a traffic man or any traffic man takes into consideration the cost of service or the approximate cost of service; that I mean that he attempts it between the two articles only; rates are made upon a comparison entirely.

Mr. HILL: I would think it would be fair to give this other statement.

Mr. Moore: You will have to go into that on re-direct examina-

Mr. Hill: I think when you question him about the testi-2967 mony of a a witness, a full statement would only be fair. Judge Dooley: That would seem to be so, but the ques-

tion is, is it exactly the same subject.

Mr. MOORE: If you will give me the page I will see.

Mr. Hill: The last question page 476, printed volume #2.
Mr. Moore: No, I will not bring that in, that is talking about a special condition down in Texas. I am talking about the general

conditions.

Mr. MOORE:

Q. On your examination in chief, counsel read you certain quotations from the testimony of Mr. Nay, the auditor of the Rock Island Railroad, in which Mr. Nay stated if the rates represented the cost of service, he presumed they were in proper relation to each other, and when I say proper relation to each other, I mean with reference to the cost of service; and a number of quotations are made there; now I want to call your attention to some other statements made by Mr. Nay that were read to you. Mr. Nay made this further statement, page 343, vol. 2: "The position I have taken is that the cost is not the only factor that is taken into consideration, that the cost is considered. Now, of course, rates might be based—

I can conceive of a case where rates might be based largely 2968 on something else than the cost. But if they were made in such a way as not to consider the cost at all, then of course, the values of the figures for dividing expenses between state and interstate would not be very great. But, in my experience, I do not recall rates of that kind." On page 345 of Mr. Nay's testimony, attention was called to the testimony of Mr. Watson, that the commission tariff of Arkansas was not properly constructed, so far as the relations of commodities and classes was concerned as bearing upon the proposition that he was testifying in regard to. Then he was asked the question: "Assuming Mr. Watson's statement to be true, would it be proper to use the revenue derived from such a tariff as the measure of cost of the operation of intrastate traffic? A. I think it would be proper, as I say, because I think it is the best basis I know of. It would not be accurate, and I think Mr. Watson's testimony would bear out what I have said, that he does consider the cost of service when he makes a rate, although not entirely perhaps." Further, on the same page, he is asked if the revenue derived from such a tariff—referring to the Commission tariff which Mr. Watson had spoken of—would be a measure of the cost of intrastate traffic, and he says "Yes, sir, it would be a measure, not an accurate measure, but I think the best known measure." Don't those statements from Mr. Nay coincide practically with the suggestion made by you in your answers to questions I have

asked you, that in your view it is impracticable to ascertain the cost of handling commodities separately, and that any consideration that is given, is given relatively, and that it is naturally inaccurate; now, is that not in accord with the views expressed by

you, and is not the testimony of Mr. Becker, to which your attention has been called by myself and by counsel for the state in this case?

A. To an extent it is, and to an extent it is not; Mr. Nay says he still thinks those factors should be used for dividing the cost, and he says that they are not made upon any relation to each other, and if they are not, I fail to see how you could divide the cost upon them; if they are not properly made as to the factors of cost, I don't see how you could.

Q. Isn't Mr. Nay's statement, that while they are not made entirely and fully, and there are other considerations entering into them, that they do afford a measure by which the relation of cost can be ascertained between the different articles of transportation?

A. I don't think you could find any measure of dividing the cost if the rates are not based relatively properly; if baskets were taken at a less rate than bar iron, I don't think there would be any way by which you could divide the cost by the revenue received from those two commodities.

Q. Are your statements in this case based upon that idea? 2970 A. No, I don't know that those conditions exist; if they did exist, I understand Mr. Watson testified the tariff was not properly built as to the relation of one article to another, and as an example of that, I say if baskets were taken at a less rate than bar iron, you could not use those factors in dividing the cost, because if you did, you would be making bar iron pay a higher rate than baskets were paying, when it is a known fact that it can be handled at a much less rate, and there comes again the question of cost; none of us know the cost of handling 100 pounds of baskets or 100 pounds of iron, but a traffic man knows that 100 lbs. of iron will cost less to carry than 100 lbs. of baskets; he knows at a glance, just looking at the two commodities, that 100 lbs. of iron can be handled at a figure much cheaper than 100 lbs. of baskets.

Q. Is that the reason rates are made higher on baskets than on

iron?

A. Yes, sir, exactly; those things come into view; 100 lbs. of baskets is much more valuable than 100 lbs, of iron; they would stand a higher rate; every condition gets into it.

Q. It follows then, doesn't it, that the adjustment of rates is not

made regardless of the cost of service?

A. I would say that they were made regardless of the cost of service, but not made regardless of the relative cost. 2971

Q. I want to understand the difference.

A. Use that the word "relative" as between the two items. Q. You concede then that in the adjustment as between the different articles of transportation, the element of cost is a con-

A. What is considered an element of cost, and that is true only when a man is making a rate where he has no ties holding him

down at all.

Q. What you mean by that is, that there may be an exceptional condition in which that rule would be departed from?

A. If he is making a competitive rate he cannot lay to that a

moment.

Q. Do you assume that traffic men, even one engaged in making competitive rates, so far lose sight of what it costs to handle traffic that they will make a rate which will not afford compensation and on which they will lose money?

A. Yes, sir, I know it is done. Q. Take for a moment this Texas lumber rate, about which so much has been said, do you understand that the Iron Mountain Railroad and Cotton Belt Railroad will take traffic under those zone rates upon which they will lose money?

A. My idea is, Judge, that that 22 cent rate blanket from Louis-

iana and Texas to St. Louis, is an unremunerative rate. 2972 Q. That is your idea; do you know that from any direct connection with the matter?

A. No, sir, nor do I know any other man that does know.

Q. Suppose the general freight agent of the Iron Mountain Railroad, and the Assistant General Freight Agent of the Cotton Belt Railroad have both testified in this case, and they have both testified that as to certain territory and certain parts of the lumber that moves under this arrangement, they decline to participate, and to use their schedules; if those men are correct in that statement, it follows, doesn't it, that even in that exceptional condition, they do conduct the business, the traffic of their companies, with reference to the cost involved in the rendition of the services?

A. There might be other factors; there might be some line they

do not care to participate with.

Q. They put it on that ground, that they did not care to participate where it was non-remunerative.

Mr. HILL: Where did they say that?

Mr. Moore: I will call your attention to it before I get through with it.

Mr. MOORE:

Q. If those gentlemen make that statement, you would not be prepared to dispute it, would you? 2973

A. Not as to their ideas, no, sir.
Q. And it would follow then, wouldn't it, that even in that case which has been brought up here as a very high example of improvidence on the part of the railroad officials in rate making, even in that case, they though they were acting with reference to the cost of service?

Mr. HILL: Who has brought that up as the heighth of improvi-

dence?

Mr. Moore: I think you have.

A. I would say if the general freight agent answered the question that he refused to participate in the movement because he would lose on it, he was figuring that out of that 22 cent rate that at times from the extreme southern part that he was not making a figure of profit, and his idea of what would compensate him for what he was making on the northern end of it, and that he was trying to

make some one else bear the burden.

Q. It is in evidence in this case, that there is a reciprocal movement with reference to that lumber traffic and grain traffic, to which your attention has been called; I will ask you if a traffic agent of a railroad, in adjusting rates with reference to the cost of service, and whether the business would be remunerative or otherwise, would not properly take into consideration the factor of the traffic being

balanced back and forth and that reciprocal feature.

A. Yes, sir, if he was not excepting one of those factors, the original factor that moved the cars, if he was not accepting that at a competitive rate which was considered by him a low rate, but if he was, then he should not accept northbound movements at the same rate, or if the original movement which moved the cars should show a good figure and should be a good rate, then he would be justified in accepting the movement in the opposite direction of almost any kind.

Q. Suppose I would say, here is a commercial condition that exists, and if we don't put in as low a rate as we can afford to put in, we are going to do this section of the country an injustice, and cut them off from the market, and in addition to that, we have competing lines, and if we do not do that, we will lose all that business; now, if we can haul another commodity in the opposite direction at six cents a ton per mile, and if we can make that on the other movement, we will make money both ways, would you say that was disregarding the cost of service?

A. No, sir, if he could get any commodity that would pay him

six cents per ton per mile, he would handle it quick.

Q. I mean mills, of course.

A. That would be a factor in rate making; there is no ifs and ands about it; I knew what you meant; there is hardly anything that moves, even in carload rates at six cents per ton per mile.

Q. You are referred in your testimony in chief to a fact which you said showed that rates are not built upon the cost of service, and cited an instance in which emigrant movables transported from Oklahoma into Texas, or Texas into Oklahoma would take Class "D"—"C" or "D," while if they were moving Oklahoma to Kansas or Kansas to Oklahoma, or Missouri from Oklahoma, that they take Class "A;" if they were moving through Oklahoma from Missouri or Kansas to Texas, they take Class "D," so that there would be absolutely no relation to the cost of service in the movement; then you state in that connection, that the liability in transportation of that class of traffic was the highest known, and in the same connection, you say that it is a commodity that railroads never care to make a profit out of,—I suppose because of the higher degree of liability.

A. I mean that it is a traffic that seeks to build up the country and railroads handle it at a low figure in order to build the country

up.

Q. Aren't those low rates always given in consideration of a release of that high degree of liability?

A. Sure. There is no doubt about that, but even then there is a degree of liability, and I think there is more claims paid on emigrant movables pro rata, than on anything else that moves.

Q. But if an emigrant goes to an agent to ask for rates on movables, the agent wants to know immediately whether he 2976

will make a waiver of liability?

A. Down to \$10 a hundred pounds.

Q. And the classification under which it will move always de-

pends upon that, doesn't it?

A. No, sir, that doesn't affect the two classes of rates; both are predicated upon a waiver; I believe they are "B" and "D" and "A" and "C" if I remember the rates specified; I know there is a difference of two classes between Oklahoma and Texas and Missouri and Texas or Oklahoma locally; it is "A" and "B" in Oklahoma and north, and "C" and "D" in Texas and north, but the waiver is there in both cases, down to \$10 per 100 lbs. Really, I mean that the railroad companies did not seek to make a profit: I did not mean upon account of its being a high liability commodity, but because railroads are seeking that traffic upon any figure they can get it.

Q. That is one of the cases in which they give an exceptional rate in order to build up the country by getting emigrants there?

A. Yes, sir, that is the idea, but at the same time, the difference between the rates in Oklahoma and through Oklahoma shows that the cost of service is not an element in making the rate, because they would have to make the same rate in both cass, if it was.

2977 Q. I don't know whether I can quote your figures exactly, but to illustrate the principle, assuming that the rate on lumber from some point, we will say in Oklahoma to Little Rock is 23 cents, that the rate is the same from the same place to Kansas City, I want to ask you if you know whether in the transportation of that product from that place to Little Rock, there is a reciprocal return movement,-whether the cars brought there do not go back empty?

A. I could not answer as to that.
Q. Wouldn't that be a very important factor in determining the relation of those rates?

A. That would be a factor, yes, sir.

Q. Do you know that the rate which you speak of-my impression is you said 18 cents.

A. What is that rate?
Q. The lumber rate from that territory to Little Rock?

Mr. Hill: It is 18 cents from that zone to St. Louis, but 22 cents from that zone to Little Rock.

Mr. MOORE:

Q. Whatever it may be, I am not assuming to quote your figures. A. What figures I quoted were put in my mouth, I didn't quote them from personal knowledge.

Q. You don't know anything about the conditions under 2978 which that product is transported at those rates, do you? A. Only generally.

Q. The facts are, I am informed as a matter of information, and I think it is in the testimony in this case, that the rate from those sections, that rate that was given you, is only when the tonnage is moved through on the lines-I am speaking with reference to the railroads in this litigation, on the Iron Mountain and Cotton Belt Railroad,—those rates apply and only apply where lumber can be moved all the way over their rails, and that rate does not apply when there is a connecting line participating in the movement. know whether that is so, or not?

A. No, sir.
Q. That would affect it also, would it not?
A. Naturally, it would mean no division for the other lines, and

having the rate for themselves.

Q. In that connection, I want to call attention to the case you cited here, an instance you cited; you stated that the rates on lumber as you remembered them, from Texas and Louisiana fields to Oklahoma were 1834 cents?

A. That is the maximum rate in Texas.

Q. That gradually varies from the last station northbound on the Kansas line until they pay something in excess of 26 cents, and that rate immediately jumps to 27 and a fraction in the State of

Kansas, and goes on until you reach Kansas City and there it drops back to 23 cents?

A. Yes, sir.

Q. In connection with that condition, you stated that at a conference between the commission and all the railroads,—that is the Oklahoma Commission you mean?

A. Yes, sir. Q. This rate was reduced to points in Oklahoma, and then you give the reason?

A. Yes, sir. Q. You said in order to keep a case from being filed before the Interstate Commerce Commission, which would have resulted in a general reduction of all lumber rates, and the only reason for the higher rates at points on the Oklahoma line is that it only applies to two or three little stations there; why would that have been brought before the Interstate Commerce Commission and why would that have been the result?

A. Because it was a violation of the long and short haul clause, and I think we could have very easily have persuaded the Commission,-proved to the Commission, if they could afford to haul lumber to St. Louis and Kansas City for 23 cents, they could afford it to

Oklahoma at the same rate.

Q. Meaning, I presume, the cost of service in hauling it was not

taken into consideration?

2980 A. To a certain extent the cost of service would come into consideration; if they could haul to Kansas City and St. Louis for 23 cents, they could certainly haul it to Oklahoma, half way, intermediate point for that.

Q. It was your idea, when it came before the Commission, if they could afford to haul it to this point, the longer distance for 23 cents, they could certainly haul it the same distance, or a shorter distance, for the same or a lower rate?

A. Yes, sir.

Q. Doesn't that involve the very essence of expense in hauling it

those distances?

A. No, sir, that 23 cents may be an unremunerative rate to Kansas City; as between the relation between the rates, the cost of service would enter into it; if it represented the cost of service at one end of the line, it would not represent the cost at the other.

Q. That is the ground upon which an appeal would have been

made to the Interstate Commerce Commission?

A. To a certain extent.

Q. You say at one time, speaking of lumber, that the intermediate rates were higher than what was known as terminal rates applying at St. Louis and Kansas City. What do you mean by a terminal rate?

A. The rate to Kansas City is considered a terminal rate.

Q. Why is it considered a terminal rate?

A. It is the terminal point; they take the big points and give them terminal rates. 2981

Q. It is a common point rate, isn't it?

A. No, sir, a common point rate is a rate that applies to a given territory, and a terminal rate applies to a certain point, and it does not necessarily apply backward.

Q. Intermediate rates were higher than at those particular ter-

minal points you spoke of?

A. Yes, sir.
Q. Now, what I want to ask you is,—those terminal points were competitive points, and that is what created that exceptional condition, wasn't it?

A. Not necessarily so.

Q. What did create it?
A. I don't know what created it. Because the line originally making the rate might have had a haul twice as long as to some intermediate point, it is always hard to tell.

Q. Do you know the history-

A. I will give you an example; right now, we have into Oklahoma from Sugar Creek, Missouri; a big oil refinery, we have 17 terminal rates of 35 cents, and the rest of the rates are 43; I have tried for many a day to find out what caused those terminal rates, and I have never been able to say what made them; it is 35 cents to Oklahoma City, Chickashaw, Muscogee, and Enid, but a station either side is 43; we don't secure enough oil from Sugar

Creek to pay the Commission to go before the Interstate Com-2982 merce Commission to find the reason for those rates and try

to get them reduced; we have so many refineries in our own state, and because it is nothing but these big cities that will draw oil from this refinery, we have never taken the matter up.

Q. It is probably some local condition?

A. I couldn't appreciate a local condition that would apply to 17 points, and not apply to the others; I figured out first that some line might be the short line, but that wouldn't apply broadcast over the state.

Q. What railroads are they participating in that movement?

A. Frisco, Santa Fe, Katy, and Rock Island. Q. It doesn't affect transportation in Arkansas?

A. Not that I know of in any way; I was simply giving you an example of what terminal rates sometimes were; they were all called terminal rates in the tariffs.

Q. Were they terminal rates in the sense in which you used the expression awhile ago in its application to St. Louis and Kansas

City?

A. Yes, sir, it applies only to that terminal, and does not apply anywhere else; that also means, that the rates do not apply between

the terminal and point of origin.

Q. In speaking of rates in the State of Arkansas, lumber rates and others, making a comparison of those, you are not speaking from personal information and knowledge you have as to what those rates are?

A. Partially so; I have made some comparisons upon them.

Q. I believe you said the lumber rate, you had made no comparison on that?

A. No, sir, generally I have made a number of comparisons on

Arkansas rates just for my own benefit.

- Q. In speaking of the flat rate on grain from Oklahoma to other states, you stated it was irrespective of the number of carriers that handled that; do you know, say for instance, whether the Cotton Belt Railroad handles any grain that goes from Oklahoma into Arkansas?
- A. I couldn't answer that without having the tariff; I know that as high as four or five lines participate in that.

Q. You don't know whether that illustration applies to the line of road of the Cotton Belt?

A. The tariff would be the best evidence.

Q. What is the movement of grain from Oklahoma into Arkansas.

A. You mean is it heavy or low?

- Q. No, sir, I not only mean that, but what are the lines by which it moves?
- A. The Frisco handles a considerable part of that grain, delivering it to the Arkansas lines; I don't know their junctions where they do deliver, but I often see billing going into Arkansas; and the

Fort Smith & Western Railroad handle in connection with

2984 the Sante Fe and the Rock Island.

Q. Aren't the rates on those lines that you speak of, where you speak about the inequalities, are those rates not just for the purpose of enabling grain to move from Oklahoma east?

A. Yes, sir.

Q. What would be the effect if that arrangement were withdrawn, upon the movement of Oklahoma grain?

A. That grain would have to find another market.

Q. It would be excluded from the State of Arkansas?

A. Those rates apply not only to Arkansas, but through Arkansas into Tennessee, all through that country.

Q. That is a commercial condition that is being met by those

rates which you speak of as exceptional?

A. I wouldn't call them exceptional, because it is a natural condition existing throughout the United States; the Oklahoma grain rates moving east, is but one factor in the natural conditions that exist.

Q. You state that there can be no contention that these rates are made upon the cost of service, and the reason you say that is, that a car of wheat moving from Alva and Enid take the same rate; either one is exceedingly high and above the cost of service, or the other is exceedingly low and below the cost of service, and it is impossible to say that those two rates, being exactly the same,

are built upon the cost of service in both instances. I under-2985 stand that there is a very large volume of that traffic.

A. I wouldn't say a large volume; there is probably 100 cars a year moved across there, that is, for eastern country; there may be more; I have seen as many as 20 cars at a time.

Q. Is it your idea that railroads are hauling that traffic at less

than it costs to handle it?

A. I don't remember the figures on that rate.

Q. You don't give the figures, but you speak of it as an illustration?

A. I spoke of it in this way, that if the rate from Enid represents the cost of handling, then the rate from Alva, which is probably 70 miles beyond, is below the cost of service; if the rate from Alva represents the cost of handling, then the rate from Enid is a high figure of profit.

Q. What is the average length of haul of that grain?

A. I wouldn't care to make an estimate, because that grain moves into Memphis, and the rates apply into Memphis and Mississippi they apply everywhere.

Q. How far are those two points from the western border of

Arkansas.

A. It would be but an approximation on my part.

Q. It is a long haul? A. Yes, sir.

Q. The terminal handling would be the same whether the stuff was moved from one place to another?

A. Practically so; of course, no grain would originate

right at Enid; it would be brought in there. 2986

Q. Assuming that grain comes across a considerable part of Oklahoma and across the entire State of Arkansas, travels for several hundred miles, would you say that the expense of handling is the same, or that a few miles difference in the haul would make a very material difference so as to make it very high at one point, and very low at another?

A. I was speaking of a shipment into Fort Smith.

Q. If it was Ft. Smith, you don't reach Arkansas territory—it is right on the Arkansas border?

A. It goes into Arkansas, making it interstate grain.

Q. How many miles is it?

A. About five miles I think, I wouldn't state the exact length; that group extends over a much larger territory than that 70 miles: there could be a haul of considerably more than 100 miles difference; our grain crop is from the north and south of the state.

Q. I was speaking of the illustration you made.

A. That illustration was to Ft. Smith.

2987 Cross-examination of C. B. Bee. resumed.

Cross-examination.

By Mr. MOORE:

Q. You say that the cost of moving 100 lbs. of baskets is ever so much higher than 100 lbs. of iron?

A. I think it would be so considered.

Q. Assuming that is correct, wouldn't the revenue more nearly represent the cost of handling those two commodities than the ton miles of each of them?

A. Not if the rate on baskets was lower than the rate on bar

iron, it wouldn't.

Q. Do you know how they are classified?

A. Bar iron, I think, is 3rd or 4th, and baskets without exceptions, is either 1 or 11/2 or double, according to the way they are shipped.

That would make a good deal of difference?

Q. That would make a good dea.

A. If there were no exceptions.

Q. Assuming those two facts, that it cost more and the rate was higher, which would represent the cost of service better, the revenue

or ton miles?

A. The revenue would nearer represent the figure that would represent the cost of service; wouldn't any figure represent the cost of service, but the revenue would be nearer than the ton miles would; that would be presuming they both moved the same distance under the same conditions.

Q. Doesn't the difference in the rate, being based on the difference in the character of commodities, run through the various incidents of the transportation, whether long or

short and so on?

A. If bar iron was moving within the state and the baskets without the state, the chances are that the revenue accruing to the lines would be practically the same per ton per mile, and to divide the expense upon that basis would be absolutely foolish.

Q. Judge J. G. Wallace was the chairman of the Arkansas Railroad Commission at the time the Commission rates in that state were made, and participated very actively in making up of those schedules. I want to call your attention to what he says in regard to the basis upon which the rates were figured. He was asked on what basis they were made, and he said the value of the properties had much to do with it. "We considered they were entitled to a fair return on their investment and amount of traffic they were doing, and we thought would be done under our rate sheet."

Again, he said: in answer to question, if in preparing the schedule of rates, the Commission made any investigation as to the

cost of service and operating trains, he said:

"Yes, we considered that the best we could; we found that nothing but actual tests will demonstrate the rate at last, that the railroads themselves cannot sit down and figure out by any rule—they can approximate but they cannot sit down and figure out

2989 just what would be a just rate, but they simply put in a rate and apply it, and if they don't make money on it, they take it out and keep putting in higher rates until they get one by which they can make money; there is a great deal of speculation in it. Of course, men sitting down here, it is all well enough to consider all these things and they do, but then at last, this is the test." Speaking of the commission: "We were going to do just like the railroads." (P. 247.) Now, is that in accordance with the views you entertain in regard to the relation between the cost of the service and the rates?

A. No, sir, I don't think a railroad man puts a rate in to see if it makes money and then puts in a higher rate if it does not.

Q. Your view is different from the Chairman of the Arkansas Commission that put in these rates?

A. Yes, sir, there would be no stability to rates whatever, if that

was the condition.

Q. Would there be any stabilities to railroads if there wasn't a relation between the cost of rendering the service and the compensation received for it?

A. When you say "relation," no; the railroad company must earn its remuneration above expenses; it would have to earn that

or go into the hands of a receiver.

Q. How can they do that except by adjusting their rates upon such a basis as would afford them proper compensation upon the service rendered, and which will in addition provide a just return upon the investment?

2990 A. My idea and experience has been that rates were put in and were supposed to be put in high enough; I have never known them to be continually raised, but I have known them to be continually reduced.

Q. Why do they reduce the rates as business increases?

A. Because they are always put in at a high figure.

Q. Why is that done?

A. It is general practice.

Q. Wasn't the cause, in putting rates in, in view of what you have just said, that they wanted to put them in high enough to assure a reasonable profit, and isn't the reduction as the volume of business increases, resultant, to a large extent at least, from the fact that as the bulk of business increases, they can reduce their charge for the service, and at the same time obtain compensation for their services?

A. That is partially it, but mostly, it is a question of necessity

for the rate to be reduced. As a rule, everything is made on class rates. Class rates are put in, and there they stay; they are always considered extremely high. A man develops business, and he goes to the railroad company and shows them he has developed a business, and special rates are checked in, as we call them, from that point to his point of distribution; there were no cement rates in Oklahoma except class rates for a long time; cement industries came into the state, and they were checked in specific rates to the

2991 different points of distribution as the business grew. The railroads saw that competition from another point was hammering that plant; they investigated that cement company's books, they find a necessity for a lower rate; they get before their committee and they investigate every detail of that business and a little more is taken off, and then there might be a time that called for an increased rate; say, at the end of the year, there is no profit, then I suppose the railroad would have the choice of raising the rates, or the traffic men would raise such rates as they thought they would

Q. The meaning of that is, if they are satisfied a rate is higher than it should be, with reference to the condition of the business, they will lower it as far as they can without putting it below the cost of production, so to speak, but when they get below that, if they find at the end of the year it costs them more than—

A. I don't know that the traffic man figures the cost of produc-

O I am a

Q. I am speaking about results? He would consider it unconsciously, wouldn't he?

A. Unconsciously; if at the end of the year shows a loss, some-

thing has to be done.

Q. Isn't the business of a railroad like the business of a merchant, if a merchant sells a million or two million dollars' worth of goods, he can sell it at a lower rate than another merchant who does not sell so much.

A. That is true enough, but a merchant knows what he

is making on each commodity he sells.

Q. That may or may not be true; be that as it may, the same principle that governs the merchant applies to the railroad, does it not? So far as the result is concerned?

A. So far as the total at the end of the year is concerned, so far

as the handling of the business end.

Q. It is the total arrived at by the application really, of the same method in toto that applies to other business, but those methods

do not apply to details of railroads?

A. I do not think they are, that is, as to the total; as a sample of that, we had before us a railroad that came in and made a showing and asked for an increased rate; the only showing they made was that the rate per ton per mile had decreased; that was the only showing they made, and when we examined it, we found they had increased about 20% in their total net proceeds for the year, but there was merely a decrease in their ton mile rate, which means

nothing in itself; that is really the only thing the traffic man has to go by, is what his road realizes for the year.

Q. You are speaking of the total business? A. Yes, sir.

Q. The earnings per ton per mile in the aggregate do not throw

any light upon the rates in detail?

A. No, sir, not on the rates in detail; nothing in the ag-2993 gregate throws any light on rates in detail. At the same time, it shows the fallacy of the revenue theory; their total revenues had increased that year very largely, but their cost of earning that had decreased very largely, and if they had divided it on the revenue theory, they would have been in a worse shape than they were the vear before to find their cost.

Q. What road was that? A. The Midland Valley.

Q. That is an Oklahoma Road?

A. Oklahoma and Arkansas,—Fort Smith to Arkansas City.

Q. Did you work out, investigate the matter, so as to ascertain

what caused the conditions you speak of?

A. Yes, sir. A sand industry had opened up a few miles from Muscogee, and they were moving a trainload of sand per day; it meant the increasing of their revenue per ton per mile; it meant the handling of that many tons at a low revenue, which would reduce the revenue per ton per mile.

Q. Judge Hill told you in his examination in chief, that the rates of these two roads engaged in this litigation were increased in the

month of January, 1909, I believe he said that-

Mr. HILL: I said the Cotton Belt.

Q. 96% increase; Judge Hill used the word "rate"; there was an increase in revenue of 96% he states; does that indicate 2994 an increase in rates to that extent?

A. Not necessarily so, and it might indicate an increase in

one rate only.

Q. I see I have not stated that to you as a railroad man would want to state it—it was 96% increase in the average rate per ton per mile. Now, does that indicate a similar increase in the rates?

A. No. I don't think the average increase in revenue per ton per mile, without other factors surrounding it, would indicate anything.

You would have to know the condition of the traffic?

A. I would have to know the tonnage that moved; it might be possible that the business of the road had fallen off, so that the road moved nothing but cotton, which Mr. Watson says they make six mills per mile on; if the tonnage showed an increase of 96% in addition to the increase in revenue, that would mean an increase naturally.

Q. In connection with the movement of grain, you spoke about the terminal handlings; you referred to the tonnage handled through the larger towns and big junction points where you say excessive handling charges occur; tell me just what you referred to by that

statement?

A. I mean, it is cheaper to deliver a shipment to a connecting line at a little town than it is at a big town.

Q. To what class of traffic do you apply that?

2995 A. Any kind of traffic.

Q. What is its application to the movement of grain in Tell me what application you make of that?

Arkansas.

A. I don't know that I applied it to Arkansas; if it did apply, it would apply to the delivery of traffic at Little Rock or Memphis to the road, as compared to some smaller station; I don't know that I used that example.

Q. I want to know if you intended it in connection with traffic

in Arkansas?

A. I don't think I spoke of it in connection with grain; if you will read me the paragraph, I can judge of what I was speaking.

Q. "That is true; grain might come over one line direct, it might originate over at one station south of there and move at the same rate and move over three lines, and be handled through the larger towns and the big junction points where excessive handling charges occur." You were not speaking of the situation in Arkansas, were you?

A. I don't think I was speaking of the Oklahoma grain.

Q. Now, you made a number of statements in regard to handling cotton; you say that cotton is treated strictly as L. C. L. freight?

A. To the extent of the rates being built regardless of the quantity

and that it is unloaded and loaded by the railroads.

Q. Is it treated as L. C. L. freight from an operating standpoint?

2996

A. Inasmuch as the railroad does the loading and unloading, that is the only difference between carload and less than carload shipments.

Q. You say "that not only applies in carrying to compress points,

but it applies to the shipment in its entirety."

A. The only difference I know, they will take one bale of cotton or they will take twenty at the same price; they will load one bale and carry at the same rate as they will take twenty bales, handled

Q. You are speaking now with reference to the application of the rates?

A. Yes, sir.

Q. Not in regard to an operating standpoint?

A. The handling of it is handled the same as L. C. L. freight. Q. Is it handled in through trains when it reaches compress points?

A. If there was a through carload of merchandise L. C. L. in the same train, it would be handled in the same train.

Q. What does a bale of cotton weigh? A. Say 525 lbs.

Q. How many units is there in an average carload of cotton how many bales?

A. I have forgotten those figures; I believe it is 20 some odd

into compress: I wouldn't care to state those things accu-2997 rately.

Q. Can you state the number out of the compress?

A. Probably two and a half times as many.

Q. Can you draw an analogy from an operating standpoint, between such units as that and ordinary package freight from L. C. L.

standpoint?

A. Yes, ordinary package cars out of St. Louis to Little Rock, Ark., would be loaded to break bulk, I presume, at Little Rock for surrounding territory, and it would carry, I should say, from seventy to eighty consignments anyway, probably more and probably less, and when that got to Little Rock, it would either be delivered locally or broken up and distributed out. Now, the reverse is true in cotton; cotton is handled into the compress, compressed and then sent south in solid cars; most of our cotton goes to Galveston, south; it is sent to the final point from the compress.

Q. You state that in one case there is probably twenty units,

and in the other seventy?

A. Probably 70 or 80 or 100.

Q. From an operating standpoint, with reference to various kinds of service, clerical and physical and every kind of service that is rendered, can you compare those two conditions?

A. Yes, sir, a car of cotton is handled, it has to be loaded at the local station, has to be a waybill made for each bale of cot-2998 ton; there may be four or five for the car; the waybill is

surrendered after the car gets to the compress; they won't deliver it without the surrender of the original bill of lading; they require the surrender of the original bill of lading whether it is consigned shippers' order or whether it is consigned to a definite consignee, they require the surrender of the original bill of lading; the cotton is then sent to the compress, compressed and then goes back to the car; new bill of lading has to be issued; it has to go through, from an accounting standpoint, more details; the money has to be returned to the shipper; the shipment is loaded on the car, and that many expense bills taken out, and then the car is forwarded to final destination, it being only the reverse of the movement the other way; the cotton receiving its L. C. L. movement at the start, and the L. C. L. freight receiving it at the final Of course, I do not mean to say that it costs as much per unit to handle cotton as it costs to handle L. C. L. freight; I don't want to be understood as making that foolish statement; I am not considering the density of the carload; there is 20 units probably, or more or less, in an L. C. L. car of cotton, and 70 units or more or less, in a car of L. C. L. package freight. I believe the total rate on cotton is 2 cents per hundred pounds for loading; I believe that is generally the rate paid for loading at the compress. hearsay, however.

2999 Q. How does the expense of handling cotton compare with

other commodities, in your judgment?

A. I think it is one of the most expensive commodities handled; that has always been my understanding of it.

Q. And do you base that upon the descriptions you have just given?

A. Partially that, and the description I gave the other day; I think the one today is part of it, and the one given the other day

Q. I believe you stated that cotton was shipped to New England States from Arkansas,-we will say from Little Rock at 80 cents a hundred?

A. That is the figure I used.

Q. And over different lines of road?

A. Yes, sir.

Q. How is the rate divided for the movement of it over the different lines, between the different roads?

A. You would have to give me the division sheets covering the movement.

Q. You don't know then?

A. No, sir, I don't know what the movement is; I don't know what it is on any commodity right offhand, because there is so many division sheets that a man couldn't carry any one of them in his head, unless he looked it up just before he came on the stand; sometimes there are ten or twelve division sheets to one tariff, and it

would be impossible for a man to remember them. There 3000 are three general bases of division: One mileage, one arbitrary and one constructive mileage pro rata; those are the three general bases used.

Q. Do you know what is the average per ton per mile received on cotton on the Iron Mountain or Cotton Belt Railroad?

A. No, sir, I haven't the least idea.

Q. Well under the division made by both those lines, the lines with which they connect at East St. Louis, they get 47 cents per hundred; work that out and state what they would get for their haul.

A. What is the haul?

Q. 345 miles from Little Rock to St. Louis.

A. That is per hundred pounds? Q. Yes.

A. It figures about 24 mills.

Q. Would you regard that as unremunerative?
A. No, I wouldn't not regard that as unremunerative.

Q. That doesn't illustrate does it, a want of correspondence between the cost of service and the compensation?

A. No, I would say that was a good rate to the railroad.

Q. To go back a little bit, you say that railroads have to frequently send the section foreman and his gang to load cotton at a station?

A. Often.

Q. Does that apply to Arkansas?

A. I don't know about Arkansas; I testified the other day, that I testified to Oklahoma conditions only.

Q. You don't know the dignity of a section foreman and 3001 section hand in Arkansas, do you?

A. No, sir.

Q. Now, what do you estimate that it costs to handle cotton and

load cotton per hundred pounds or per bale?

A. That is impossible to figure that; the figures are hard to apply. I remember during the last cotton season one morning, they had to bring the section men about four miles to load ten bales of cotton, and then they had to go back to their work; now, they had to put the car up by hand to the loading platform, it was not there where they could load when they got there; they had to set the car, and as they didn't want to wait for an engine, they set it by hand; it took them some time to load it, as they had to load it from the right-of-way into the car.

Q. Do you know what the average cost of loading miscellaneous

freights is?

A. No, sir.

Q. Have you any idea, per ton?

A. You mean on the cotton in Oklahoma?

Q. I will say in Oklahoma?

A. I have the figure in my office, I don't remember what it is. Q. You have no knowledge as to Arkansas?

A. No. sir.

Q. If it comes them from two to four cents per bale in Arkansas, how would you say that compared with the cost of loading 3002 miscellaneous freights?

A. I would say that compared favorably with other

freight.

Q. Would you say it costs as much as it does to load and unload miscellaneous freight?

A. I think it costs less. Q. To load cotton?

A. Yes, if they can load it out for from two to four cents a bale. Q. Isn't it a fact that that applies in Oklahoma as well as in Arkansas?

A. No, sir, it costs more to load cotton than that.

Q. Is it a fact that it costs less to load and unload cotton under your practices in Oklahoma than it does miscellaneous freights?

A. No, I don't think so.

Q. Have you any information on the subject?

- A. Yes, if course it costs less, figuring on the handling of L. C. L. freight; the expense of handling cotton at the compress is small; they pay a very small figure to the compress for loading it; they put their own men in there, and they do it at a very small cost to the railroad.
- Q. Doesn't it take a large number of packages to constitute a ton of ordinary L. C. L. freight?

A. Yes, sir, I should think it does; I should think the ordinary

L. C. L. shipments would be about 200 pounds.

- Q. Do you think the average L. C. L. shipment in state traffic is 200 lbs? 3003
 - A. I think the average would exceed that in state traffic. Q. What would it be in interstate?

A. Something less than 200.

Q. I don't know whether I understand you; do you mean to say that packages that are peddled out in state traffic are carried in larger bundles than L. C. L. interstate freight?

A. I mean that the average L. C. L. shipment in Oklahoma-

- Q. I am asking you to compare the average L. C. L. shipment in state traffic as compared with L. C. L. shipments in interstate
- A. That is what I am doing; the average L. C. L. shipment in Oklahoma is a heavier consignment than the L. C. L. to Oklahoma.

Q. You mean the packages are heavier? A. No, sir, I mean the shipment as a whole.

Q. I am asking you the number of packages, separate packages, how many do you require to constitute a ton in L. C. L. traffic in your state business, and in your interstate business?

A. I have never seen any figures on that at all.

Q. Isn't that an important feature in determining the expense of L. C. L. shipments within the state?

A. I have never seen a figure on the L. C. L. shipments made that way.

Q. Wouldn't that be a factor in considering the relative 3004 expense in handling L. C. L. shipments between state and interstate?

A. That might be a factor to be considered; the railroads have never seen fit to produce those figures.

Q. Without having investigated it, do you believe that the L. C. L. packages are broken up and are more numerous to the ton in state traffic than in interstate traffic?

A. I don't believe they are in our state. I wouldn't like to state definitely on that, but our state shipments as a rule, are pretty

Q. Do you mean the retail business and the local jobbing business out of your trade centers, is conducted in larger units than the wholesale business that consists of buying merchandise in other states and bringing it to your local trade centers?

A. I have checked freight train after freight train in our state, and the 20 and 30 and 40 and 50 pound packages of through freight from Montgomery-Ward and Sears-Roebuck and Simmons Hardware to people in our state is phenomenal.

Q. There seems to be practically a parcel trade between your

state and St. Louis?

A. Between Kansas City, Chicago and St. Louis, and between Gainesville, Texas, 7 pound, 10 pound and 20 pound packages and from Kansas City and Fort Smith.

Q. You have a joker down there?

A. I didn't mention the commodity Judge.

Q. That produces a condition that would not exist where

that trade is not carried on.

A. That is part of our business; I presume that the same thing exists in Arkansas, and that Simmons-Hardware and SearsRoebuck ship to Arkansas; I know the condition exists in Texas, as I have checked it going to Texas.

Q I understand it is not done very much in Arkansas; if that is

correct, that would make a difference?

A. Yes, sir, I presume if it is in evidence, it would speak better for itself.

Q. Coming back to the cotton, you don't know how cotton is handled with reference to loading and unloading in Arkansas, or was in 1907?

A. No more than general information as to how cotton is handled

everywhere.

Q. Do you know at what points on the Iron Mountain road and Cotton Belt road, the compresses are located?

A. No. sir.

Q. Have you any knowledge as to the extra expense occasioned by extra switch engines that are employed at compress points in Arkansas on those two roads?

A. Not specifically; I was speaking generally, not as to specific

conditions.

Q. Tell me about this batting of cars, how is that done?

A. Nailing strips on the outside of the doors to keep fire from getting through.

Q. Did I understand you to say that material is thrown

away? 3006

A. It generally is.

Q. Do you know whether that is done in Arkansas?

A. There are general instructions out to return that material but the percentage that is returned is small.

Q. It is not a very large item of expense?

A. No, it is very small; it would amount to 20 or 30 cents a car, I imagine.

Q. Do you know of any instance of 500 cars of cotton lying in the yards and compress points in Arkansas for twenty or thirty

days?

- A. No, sir, and I didn't intend to make a statement that at any point 500 specific cars loaded with cotton were in a yard for 20 or 30 days; I mean that 500 cars were in there between those days, and I used that to show the trouble in switching a car; there might be 20 came in and 20 go out, or 50 in and 50 out in the day. didn't mean to intimate that any specific 500 cars or any number of cars remained there any particular time, but that condition was
- Q. You said you had seen as many as 500 cars laying there, some would be there ten or fifteen or twenty days?

A. Yes, sir.

Q. Do you mean by that that you have seen 500 cars at one time?

A. Yes.
Q. Constantly there for any length of time? A. Not in Arkansas.

Q. You know nothing about the conditions in that respect 3007 in Arkansas?

A. No, sir; we had a blockade in Oklahoma at all our

compresses when I saw that condition.

Q. You stated further that every time the cotton was called for, it generally required the switching of every car.

A. Generally speaking.

Q. You mean to say that if there were 500 cars in the yard, every one would have to be switched?

A. I mean that you might have to switch ten cars or all of them; there is no way to set those cars first out; you may pick up just one car, and you may have to go through all the switches to get out one car; it is just a case of accident as to where you get it.

Q. In your language, you didn't intend to make these statements

as strong as the language I have called your attention to?

A. Not in the sense you have taken it. I did not mean that a

general switching of the yard was necessary at all times. Q. Then you say again, after the cotton is moved to the compress, it is again put back in the car and the same process gone through with again, what do you mean by that?

A. Batting of the doors I presume, or loading it by hand.

- Q. In view of your impression as to the extent of the service to be rendered in handling cotton, what is your view as to the relative expense of handling cotton as compared with, I will say, grain 3008 or lumber?
 - A. I think either commodity is handled much cheaper. Q. You think grain and lumber is handled cheaper than cotton?
- Q. Do you know the average rate per ton per mile on those commodities? A. Where do you mean?

Q. In your own state?

A. I have practically the figures, yes, sir.

Q. What is the number?

A. If I remember, grain average is about six and a fraction mills; and the lumber something less.

Q. That is about what is testified to in this case? What is the

average revenue on cotton per ton per mile in your state?

A. About 20.

Q. How does the difference in those rates correspond with the

difference in handling the three commodities?

A. I think the expense of handling cotton in my opinion, is much greater than the handling of grain or lumber, but I think that cotton is a more remunerative commodity to the railroad than is grain or lumber, if that is the answer you desire.

Q. How is the expense of handling cotton, how does it compare with the expense of handling live stock?

A. It is greater handling cotton than it is handling live

3000 Q. What is your rate on stone and coal per ton per mile in Oblahoma?

A. You mean state business?

Q. Yes.

A. You will have to tell me whether you want the commission rates or railroads' rates.

Q. Railroads' rates.

A. Stone is handled in Oklahoma by the Frisco at a rate of less than 5 mills per ton per mile, part of it; stone is handled by the Santa Fe, I am speaking of where most of the stone moves, at the rate of approximately six mills per ton per mile.

Q. How does the cost of handling stone, taking in consideration the risk and everything, compare with the cost of moving cotton?

A. There is no consideration between them; stone costs nothing

as compared with handling cotton.

Q. Five mills of stone against, I believe you said, 20 mills for cotton; don't those rates pretty well represent what you testified about the relative cost of handling those commodities?

A. I think they do.

Q. Doesn't it follow that whether the makers of those rates intended it or not, that they did accidentally-we will assume that there was no design connected with it-got somewhere near, in adjusting the rates, to the rates that existed in the cost of moving the articles.

3010 A. There is no doubt in my mind that they were getting at the relative cost between the two commodities, of moving them, but I don't think they did figure the cost of service in there by any means; I think the stone rates are entirely too low.

Q. Has your Commission raised it?

A. Yes, sir; the result of the stone tariff which was injoined was

Q. Never mind about that; you are talking about rates in Oklahoma, you don't know anything about the rates in Arkansas?

A. Generally yes, specifically probably no. I have made some comparisons on your Arkansas rates.

Q. Could you tell me now the Arkansas rates on those com-

modities which I have been talking about? A. I have them; I would have to look it up; I remember these

two rates because they were specific rates.

Q. I want to call your attention to some little difference between your understanding, and the difference between Oklahoma and Arkansas. I believe you said that cotton is always loaded at shipper's count, and sealed after the doors are closed; you are speaking about the practice in Oklahoma?

A. Yes, sir.

Q. Do you know what the practice in Arkansas is? A. No. sir.

- Q. The methods that prevail in Arkansas in the matter of handling and conducting their business, from an operator's standpoint, would not be known to you? A. No.
 - Q. You don't pretend to have a knowledge in that respect? A. No.

Q. You undertook to describe the manner in which a train is broken up at a terminal division point; you are not speaking from your knowledge of the manner in which trains are handled on the Iron Mountain road or Cotton Belt road, in Arkansas, are you?

A. Not to be able to swear what was the specific policy, no sir, but I know it is the general policy, and from reading the rules of the Missouri Pacific Railways, I would think that is the manner in which it is handled in Arkansas.

Q. But all you know about it is your general knowledge and then the information you might have acquired from reading the rules?

Q. What rules do you refer to?

A. Red Ball rules.

Q. Where did you find them?

A. In the Missouri-Pacific's book of instructions.

Q. Have you got them before you there?

A. Yes, sir.

Q. Let me see what you refer to please?

A. "Instructions governing the movement of Red Ball and Green Ball freight; also schedules in brief, showing through con-3012 nections, and the time between various Cities."

Q. Show me the rule which you speak of as having a re-

lation to the movement of through trains?

A. One rule here is Rule 5, page 7: "Any Red Ball or Green Ball car set out or left over, becomes at once a preference car for its class, which fact must be indicated on way-bill by attaching form 3407. Should it become necessary to reduce a train in which this car is again moving, it must not be cut out a second time if in

Here is another rule: This book also shows what is redball and greenball freight, listing the different commodities: "Red Ball or Green Ball freight loaded, or received from connections, at an intermediate station, destined to through points, must be moved to the nearest division terminal, and forwarded from there on first train of proper classification. Superintendents should arrange for this movement on their divisions.

That carries out what I stated with reference to handling cars into terminals where they were put on through trains, showing that the local is the work train for it. (17) "Red Ball or Green Ball freight destined to intermediate stations must be moved in trains of proper class to the nearest division terminal. Red Ball or Green Ball freight received or loaded at terminals for local points must

bear Red Ball or Green Ball cards to destination. 3013 movement of such freight between points on same division,

the train which will get it to destination promptly will be considered proper train. Superintendents will arrange for such movements on their divisions." (18) Trainmasters must keep informed of the movement of Red Ball and Green Ball freight over their respective territories, and will be held responsible for delays to such freight occurring under their jurisdiction.

And Miscellaneous Instructions, on page 10, which covers the

handling. Those are some of the rules that I have read. I read those to find that the general line of handling that traffic is the same as it is in our state and apply that to other conditions. I want to add to that answer that naturally as any man would before testifying in a case of this kind, I made a trip to Little Rock, trying to familiarize myself with the rules of the Railroad Company, and conditions existing, as best I could, and I have spent considerable time with witnesses for the state who have made these examinations, and I am advised that testimony will be put in this record before the case is closed, that will show the average time that cars going through the state are delayed in the state, is approximately six days instead of 28 hours as the schedule shows they should move, and taking these things into consideration, I think the movements are the same as they are under other general conditions.

Q. When did you make a trip to Little Rock?

3014 A. When the case was set here for the last hearing, about two or three weeks ago.

Q. How long were you there?

A. All of one day and part of another.

Q. So your personal knowledge rests on an investigation made in a day and a half?

A. Yes, sir, there are three days I have had here with the experts of the state.

Q. That is not personal knowledge?

A. No sir, that is only getting a knowledge of the facts, and asking questions with reference to different conditions that a man could testify to, without testifying from generalities; that was all I

cared to know; I was not looking for specific instances.

Q. You undertook in your examination in chief, to describe the movement and handling at division terminals and other places of through trains; you say a train will start out from Kansas City or St. Louis or some other point, with all Red Ball freight, that being the highest class of freight the railroad handles, that there is in the yard, and if there is not enough there in the yard to make out a Red Ball train, they put in Green Ball or anything else to make up their tonnage, where did you get that information?

A. From that little book.
Q. Just point that out to me.

A. Rule 14, at page 8, "Red Ball trains must not handle Green
Ball or ordinary cars, except when necessary to fill out, and
such fill-outs will in no way affect the classification of the
train. It shall still be a Red Ball train." We understand
from "fill-outs," if there is not sufficient Red Ball tonnage, they will
carry Green Ball first and ordinary freight second, in order to fill
out their tonnage rating.

Q. Does that relate to the making up of Red Ball trains at the place where it originates?

A. Yes, sir.

Q. Are you familiar with the manner in which the classification yards of the Iron Mountain Railroad at Dupois, opposite St. Louis. A. In what way do you mean?

Q. Do you know anything about the classification of freight there?

A. No.

Q. Do you know anything about the manner of conducting the business?

A. Not a particle.

Q. Do you know how cars that it may be necessary to detach from Red Ball trains are arranged in the train, whether any arrangement is made with reference to convenience in handling the business?

A. If they are obeying the rules, I know how they are handled.

Q. What do you find in the rules?

A. Rule 12, "Unless specially authorized, all Red Ball and Green Ball trains must be switched in station order at the initial point, cars without air brakes, and cars to be cut out en route in the rear. When fill-outs are required, place next to caboose. Cars picked up en route must be put in proper place in train."

Q. What is the purpose and effect of that rule?

A. It means that when a car has to be set out, it has to run up to the station, and either set its own cars out or have a switch engine come on behind it and set it.

Q. What switching movement is involved in that?

A. At least four switches.

Q. I don't know about the number of switches, that is as simple a movement as can be made in moving the cars from one train to

A. That is true.

Q. It simply means to detach that car, take it off from the part of the train in which it is placed with reference to convenience in switching, and leave it at some other point?

A. Yes, sir, and that is where I think terminal expense comes in on that train; that switch engine has to do all that switching, put that in that particular order for the Red Ball engine to handle.

Q. What is the character with reference to state, interstate or trans-state of the contents of the car that is switched out of the Red Ball train usually?

A. What is the character of the contents?

- Q. A Red Ball train represents, as I understand, a train 3017 carrying through freights to different points?
- A. Certain classes of through freights. Q. Would you say that trans-state freights shipped from St. Louis south, are moved in Red Ball trains?

A. Some classes are and some are not.

Q. We will take merchandise?

A. All L. C. L. merchandise would be in there.

Q. That would be in Red Ball trains?

A. Yes, sir, so would the interstate having a destination in Arkansas.

Q. And trains are made up usually, as far as it can be done, are

they not, of cars conveying the same character of tonnage, is that true or not?

A. Preference being given to the most highly perishable, or highest grade Red Ball freight.

Q. A car attached at St. Louis to a Red Ball train going into Texas which has to be set out at Little Rock or at Hoxie in Arkansas, usually doesn't carry trans-state contents, does it?

A. A car hitched onto a Red Ball train made up at St. Louis?

Q. Made up largely of cars going to the State of Texas, which has to be detached?

A. Usually that is the intention.

Q. That switching expense you spoke of is in detaching Arkansas freight from trans-state trains?

A. Yes, sir, it might be that.

Q. Assuming a movement of that sort?

A. Yes, sir, it would be.

3018 Q. I understand that there may be an accident, a car now and then which will disarrange the service and cause some extraordinary expense, but I am speaking of the regular make up

of trains or the regular movement?

A. Wait a moment, that is not the only thing they detach a car for, they might detach a car at a junction point, say at Ft. Smith for an Oklahoma station, which would be entirely an interstate shipment, but it would be an expense on Arkansas, for which Arkansas would receive no revenue.

Q. I understand that, but in cases where cars, we will say, Green Ball or local freights or freights destined for the State of Arkansas are included in the train, the handling of the cars growing out of that condition, is for the benefit of Arkansas freight, isn't it?

A. If it is Green Ball freight that is entirely for Arkansas, yes,

Q. To what extent do railroads attempt, in making up trans-state trains, to avoid mixing them up with local cars that will have to stop in the State of Arkansas, if the tonnage is mostly going to Texas?

A. They put their regular package merchandise cars for Arkansas, and highly competitive Arkansas cars on a train with Texas freight, just the same, because that freight is just as valuable to them as the other, and it is as highly competitive as the other, and they would show no preference of handling Texas freight over Arkansas freight or Arkansas freight over Texas freight.

3019 Q. Do you mean if there were cars enough to handle a train to Dallas, Texas, and there were additional cars going to Arkansas, they would put the Arkansas cars in the train going to

Texas?

A. They would make two trains.

Q. And they wouldn't attempt to put all the Dallas cars in one train?

A. They would attempt that, yes.

Q. That is what I mean-

A. From information I have received, I judge they don't do that, for the simple reason that if all cars of trans-state freight passing through Arkansas have an average delay of approximately six days in Arkansas, it certainly indicates that they have not handled those

cars on trans-state trains.

Q. Doesn't it resolve itself into this condition, a train made up of partly trans-state traffic for the south, possibly it has some cars for Arkansas; when they reach the division point in Arkansas with those cars, they simply detach them and take them off that train, and the trans-state business then goes on to its destination; isn't that the movement that is outlined, in so far as it is outlined at all?

A. Yes, adding other cars to the train.

Q. Adding cars which may properly be carried in that class of train?

A. Yes, sir in order to fill out their tonnage.

Q. They want to economize as much as they can by using to the extent of their power; that is a matter of economy?

A. Yes, sir. I have watched the operation of trains in Kansas, Missouri, in Texas, in Colorado, and New Mexico, and I have spent a large part of my time in watching the operation of trains in Oklahoma, and I fail to find that there is any difference materially between the operation in one place and the operation in another, as every general superintendent desires to get the best means of handling his trains that anybody else has, and I think conditions that exist in one state can generally be said to exist elsewhere.

Q. Did you ever work in the operating department of a railroad? A. Only while I was with the division superintendent, and to a

certain extent while I was in the motive power department.

Q. Did you participate personally in handling of trains?

A. Yes, sir, when I was with the division superintendent, I had charge part of the time, of the quick dispatch of trains; I assisted in making up the time card, and I assisted in cleaning the vards out of old freight, and I spent many an hour on the switch engine picking cars out of the yard and making up through trains.

Q. Your duties were mostly discharged in the office, however, were

they not?

A. Three months of my time and may be longer, I spent with the superintendent of machinery, and my time was spent almost entirely on the road; I was never in the office only to write out reports.

Q. How many months were you with the superintendent of ma-

chinery?

A. Over a year altogether.

Q. How much of that time were you on trains?

A. I think about five months; it is hard to remember those things.

Q. How long were you with the other man?

A. I had three months on the road continually with him?

Q. Tell me what your position was, in connection with the operation of trains on the road?

A. Simply doing whatever he told me.
Q. That was the handy man work?

A. That was the handy man work?

A. That was when I was with the division superintendent.

Q. If he wanted something done, he would send you out to do it or have it done?

A. Yes, sir, and I would often be out for a week without seeing

him at all.

Q. I want a little fuller description of the duties that you dis-

charged when you were sent out by the superintendent?

A. There would be a blockade—I remember we had a blockade in what was known as the Sialo yards, and I was sent there; I was there five days in cleaning that blockade up; cars had come in there

so they couldn't get a train through the terminal. when I was commercial agent at Terrion, the transportation 3022 department called upon me to help clear that blockade,

which I did; I worked there, I think, for two weeks.

Q. It was in cases of that kind, you would be sent out in emer-

gency?

A. Yes, sir; I assisted in watching trains; I used to ride locals all the time, see that the agents were properly loading their L. C. L. freight, see that the conductors were quickly handling it, yardmasters were making through trains in station order, and see that the work was properly done on the lines.

Q. The experience you gained in connection with cleaning up this blockade did not represent normal conditions, did it?

A. Not entirely so, no.

Q. That was on that line down in Mexico, was it?
A. Yes, sir.
Q. What kind of road was that in point of construction?

A. It was as good as the average line in Oklahoma, 3600 miles of track.

Q. How was it compared with the Iron Mountain or Cotton Belt? A. That part of the Iron Mountain line which I have been over in Oklahoma-

Q. That part in Arkansas?

A. I don't know that part of Arkansas.

Q. You said you understood that it would be shown in 3023 this case that there was a very great delay in the movement of trans-state trains in the State of Arkansas: to what period does that relate, do you know?

A. I did know, Judge, but I cannot recall it now. I simply

know-

Q. Is it not a fact that your impressions—the impressions affecting your testimony in this case-are derived very largely from the impressions you gained in talking with the parties, from whom you obtained that information?

A. No, sir, I have my general experience, backed up by the conditions in Arkansas, which I have taken from these men who have

been down there.

Q. So, your impressions in regard to the conditions in Arkansas, are based upon information that you obtained from others, in the manner that you have described?

A. Where they differ from general experience, yes, sir, but they differ slightly from my general experience in such matters.

Q. Did I understand you to say that this very high terminal expense that is connected with the movement of this class of trains we are talking about now-

A. Very high terminal expense?

How does it compare with the terminal expense to state Q. Yes. freights?

A. No difference whatever.

Q. You think not? 3024

A. Not for the amount of work performed.

Q. How would it compare with the switching that is necessary to make up a train to carry state tonnage from some division point

and peddle it along the road?

A. There is not a particle of difference. The switching engine goes into its yard to make up a train-you take a classification yardtake Little Rock yard, as an example: I can see no reason why there would be any difference with a switch engine going in there to make up a local or red ball train; he has to take those cars anywhere they may be located; he has to take them all over to a making track, if he has one, and in classification yard he would have one. making that red ball up just the same as-

Q. Tell me the relative expense as between trans-state freight and

state and interstate freight.

A. There I agree with you; there is considerable difference in expense.

Q. What does it consist of?
A. The trans-state train would not be handled anything like as much in the trans-state, as state or interstate.

Q. What is the difference in terminal service as rendered each

class?

A. The mere making up of the train and putting it together again is the total expense of the trans-state, presuming the car had been weighed before it came into the terminal; while with the state freight they would have to break that train and in addition deliver that car to wherever it was going-to some private switch track, housetrack, or to the team track.

Q. Mr. Bee, is it necessary to break up the arrangement of the

trans-state cars on a red-ball train?

A. No, not exactly break the arrangement of it entirely. They

cut out the cars from the back.

Q. Assuming that a train arrives at Little Rock with 25 cars: 20 of them contain merchandise going to Tyler, Texas; the rest contain green ball, going to the State of Arkansas;

Now, what has to be done-tell me what switching, if any, is re-

quired to be done for those trans-state cars at Little Rock. A. None of it is red ball traffic? Let me understand.

Q. I do not understand your fine distinctions there, but 20 cars go to Dallas, Texas, and 5 cars in that train will be detached at Little Rock to go to other places.

A. If that train is made up according to instructions, Judge, the first 20 cars are red ball we will say, and the next 10 cars-assuming the train is carrying 35—are green ball, while the next 5 cars are ordinary freight:

If that train has no red ball for Arkansas, and no green 3026 ball for Arkansas, and merely one of these five ordinary cars

for Arkansas—the switch engine would run in and take that one green ball car out, set the train back again and go on. But if one of those red ball or green ball, and all of the five ordinary cars were for Arkansas, it would require that they take all the train, including that first red ball train, kicking that train out and putting that part back on the train again; that is, kicking the green ball out and put that part back and then set the ordinary freight out. Now, we have set out seven cars of that train. They have got to fill up. Probably their filling up will include three cars for Galveston, or one for Galveston, one for another point and one for another point; they must set those cars in at the exact spots they belong and it means the breaking up of that red ball train to the extent of setting those cars in their station order, if the rules are complied with.

Q. So then, those cars from the time the train leaves St. Louis

are put together in station order?

A. They are supposed to be.

Q. If that is true, the Tyler cars will all be together and so arranged that it is not necessary to break up their solidity in the train for the purpose of getting thes cars out?

A. No, sir.

3027 Q. So there is no moving necessary except to attach and detach?

A. Yes, sir.

Q. And the extent of the switching depends on the number of cars to be taken out and put in?

A. And the destination of the cars that are to be put in.

Q. If there is a car or more going to Galveston they would put them in there in the order of the station it is going to?

A. Exactly.

Q. Is not that the most expensive form of terminal service, Mr.

Bee, that is known in railroad service?

A. I would not call it the most expensive, for this reason: that the switch engine is delayed while it is performing that service at the main line, or main passing track, while that service is being performed, and it means a delay in that yard—

Q. Let us divide it up and first consider it with reference to the

service rendered to the trans-state freight on that:

Confine yourself to that; is not that the most expensive class of terminal handling? Leave out now the consideration you mentioned a moment ago?

A. I cannot see that it would be the most expensive. There
3028 may be a car which is all trans-state and destined to an Oklahoma or Louisiana point, over one of the other branches.
That car must go through the same experience in the yard that a state
car would go through after it is loaded and pulled in.

Q. Leave that out at present and take the fifteen or twenty cars going to Texas.

A. Then there is very little service performed, but the class of service is just as expensive for the length of time as the other service.

Q. It costs just as much to switch a car fifty yards for a trans-state as for state?

A. Yes, sir.

Q. Referring to your suggestion that the car might be going to some other trans-state point and that car, like the rest of the cars, would be put there in station order, would it not?

A. Yes, it would be put in in the Little Rock station order.

Q. It would not be put in between two Texas cars?

A. Oh, no. It would be the Little Rock station. It would have the same service performed upon it as any other car in the yard. It would be pulled out of the train and kicked over into a passing track, or any place to get rid of it. It would then probably mill around in

the yard until they could redball up the train that was going out that it would go on. It would be switched backwards and

forwards into its proper place on that train. There would be no special switching for that car, but it would receive the general switching that the other cars would. It might be handled once or twenty times until it was finally located in its proper place in the train.

Q. What would be the occasion or necessity of handling it twenty times?

A. They might have a bunch of cars behind it-

Q. It might get in the way——
A. Until it was finally gotten into its proper place. I said once or twenty times as to the average; I would have to know the train and see the switching.

Q. I take it that all intelligent operators of railroads devise some system or method by which the greatest economy in the handling of

traffic of that character can be obtained.

A. Yes, sir, and if they have a yard large enough they would have a track over; we call No. 3 lead or No. 4 on which trains of this branch would be made up, and that car as soon as the switch engine kicked it out and made its tran-state trains up so it could go on, they would take it on its proper track and there it would lay until-

A. The Arkansas traffic has no interest in the way in which transstate cars are arranged after they pass through the operators of Ar-

kansas?

A. No, sir, none whatever.

3030 Q. While you were in Little Rock did you see any switching done upon the main track?

A. No, sir, I did not go into the yards at all.

Q. You do not know what the facilities and arrangements there

A. No, sir, the same switching backwards and forwards of course-

Q. Do you know whether they have a classification yard there or not?

A. I think they have, Judge, but I cannot say positively. I have seen a list of the classification yards. I paid very little attention to it.

Q. Just one more word on that subject, Mr. Bee: are those matters that you have been describing in detail what you meant by "highly expensive terminals" and "highly expensive terminal services"?

A. To a certain extent. I think where you got that idea—I think you misunderstood me. Where I used this highly expensive terminals in the sense you are now taking, it was a question Judge Hill asked relative to freight East of defined territory and going to Arkansas or Texas, and I said that freight would pass over a number of lines and would pass through these highly expensive terminals mentioned-Kansas City-and stated that I understood the cost there

was four dollars and some odd cents to switch from line to

3031 line; that was where I drew special attention to that.

Q. That is not an expense into Arkansas? A. Not unless the business is destined to Arkansas.

Q. Would it in that case?

A. That is an expense that has to be borne by that traffic.

Q. Is it chargeable to Arkansas in any way?

A. Not to Arkansas. It is chargeable to traffic that passes through,

Q. I see here something about citrus fruits passing upon the red ball trains: you said that that traffic affords a very slim revenue to intermediate lines because the originating line-I think you mentioned the Southern Pacific-would require a large share of the charge for its transportation and the line which handled it at the other end would also want a good share and there would be little

A. That was a shipment destined to Washington or New York City, if I remember correctly?

Q. Do you know on what basis the revenue of handling shipments

of citrus fruits is divided between the lines?

A. No, sir, I do not; not specifically. But I should imagine the Southern Pacific would ask for a little more than a mileage pro-rate.

Q. How are you prepared, then, Mr. Bee, to state that the revenue of the intermediate line would be very small as as compared

3032 with the end lines?

A. If you will remember the question, Judge Hill put to me, he said, if the red ball from the coast to Little Rock and to New York or Washington was the same—he asked me to compare the two, and that is when I said on the shipment to Washington, the rate on the intermediate line would, in my opinion, be small, because I presumed the originating line would ask for better than a mileage pro-rate, and the delivering line would get that much or better. But even if they did not, and it was divided strictly upon a mileage pro-rate and that shipment moved through South via the Southern Pacific and came over the Missouri Pacific, and then went East over other lines, on the same rate that applied to Little Rock, unless the Little Rock rate was an ourrageously high one, the revenue accruing to any line would be exceedingly small.

Q. This is not an important matter, but I call your attention to it because you have made statements, I think, wholly upon wrong

impressions:

My information is that the lines East of the Mississippi River get sixteen percent of the charge. The remaining eighty four percent is divided on the basis of forty nine percent to El Paso. The rest to the intermediate line:

In view of that fact, would you say that your statement as to the

division of that revenue is correct?

A. Yes, sir, because that only leaves 35 percent of that revenue to be divided between El Paso and the Mississippi River. You said 49 percent of——

Q. I will say now 49 percent of what was left: put it on that basis.

A. That would leave less than 43 percent accruing to the lines

from El Paso to the Mississippi River. If 43 percent of that rate had to be divided to—I do not know how the Missouri Pacific got that—

Q. How does that compare with the proportion of the distance

from Los Angeles to New York?

A. It would appear to compare favorably, but it must be taken into consideration that the rates East of the Mississippi River are very low compared with the rates West of the Mississippi River. The very fact that they take only sixteen percent of that rate shows that and I want to say right there, that my statement that the line that originated the traffic would demand an excess, shows it when the line to El Paso demands 49 percent of that rate—49 percent of the rate from point of origin to the Mississippi River.

Q. Is not the distance from El Paso to Los Angeles shorter than

the distance from El Paso to St. Louis?

A. Not the way the shipment would be handled, no, sir. If the shipment was handled by the Rock Island it might be, but in connection with the Missouri Pacific it would not be.

Q. How large a movement is there of citrus fruits?
A. I do not know that a single car ever moved.

Q. You have not had much to do with this case then

A. I do not know of it; I am simply answering questions that have been put to me. Citrus fruit has to move over some road, but whether it moves that way or how it moves—the Southern Pacific gets part of the business, certainly.

Q. You say that that is carried through terminals and through

highly expensive terminals?

A. Yes, sir, it is.

3034

Q. State the exact meaning now of that expression with reference to the expense of moving citrus fruits.

A. I was talking about the terminals it went through. It origi-

nates at Los Angeles-

Q. I want you to explain what you mean by the effect of those heavy terminal expenses in the transportation of citrus fruits. I do not understand it.

A. I mean that citrus fruit moving from Los Angeles to Wash-

ington or to New York City, would be one of the commodities they would move through the heaviest and most expensive terminals. That fruit would originate at Los Angeles, where a heavy terminal is charged. It would move through El Paso where I know the terminal

rates are exceedingly high. It would probably move to San Antonio, where again the terminals are high. I do not

3035 know whether the I. & G. N. would get it there or not, but if she did she would bring it up to Texarkana, I presume, or to the connection with the T. & P. The Missouri Pacific would likely handle it to St. Louis, again through expensive terminals, crossing the bridge; then through all the Eastern terminals, which are expensive.

Q. Who bears all that expense?

A. The railroads that own the terminals.

Q. Arkansas would not have much to do, then with the terminals in St. Louis, El Paso and Los Angeles?

A. Not a thing that I know of.

Q. What terminals are in Arkansas at which a heavy expense would be incurred?

A. I presume Little Rock.

O. You were also mistaken in referring to this subject, were you not, in your statement that the Arkansas lines would require their revenue in the case of the shipment of citrus fruit on a mileage scale?

A. I presume they do. That is my presumption, figuring the rate

was divided on that basis.

Q. That was your presumption? You did not know that?

A. I did not. I still presume they get their pro-rate from a mileage basis between the lines East of El Paso and West of the Mississippi River. 3036

Q. Is it not a fact that your statements in that connection were simply based upom impression without actual knowl-

edge?

A. That is true. I have said so. The tariff and division sheet, Judge, is the best authority. I am simply stating what I presume to be the case, and if it is different, the tariff and division sheet can be introduced and show that my impression is wrong. I stated at the start, Judge, that I did not care to specify any specific rates extending to or through Arkansas, and I should not be asked for it.

In illustrating additional service in the way of a longer haul that would be required to Texas common points for the same rate of compensation, you stated that the difference between those common points, referring to the first one South of Texarkana, and Big

Springs as the other one, was six hundred miles.

A. No, sir, I said I figured a difference between the common points of 662 miles, but I did not say between those two specific

points.

Q. "Take two points originating at St. Louis handled over the Iron Mountain, one destined to the first station in Texas, on the T. & P., South of Texarkana or West of Texarkana, the other destined to Big Springs, which appears from this map to be the end of the common point territory. The distance between those points is in excess of 600 miles."

That seems to be your former statement.

A. I did not mean to say that. That was an error.

Q. Did you look that up before you made that statement?

A. That was an error, Judge.

Q. What is the distance?

A. I tried to get the map the other evening, to measure that. I had it in mind and then forgot it. I did not intend to give any distance from there whatever.

Q. Your testimony to that extent is in error?

A. Yes, sir, to that extent. I did say I had figured the distance between the common points and found one of 662 miles.

Q. How many connecting carriers would participate in the trans-

portation of commodities from Pittsburg to Texas?

A. Oh, I guess a man could figure out a route with six, seven or eight carriers participating in it. I think three or four.

Q. Do you remember what you stated in your examination in

chief?

A. No. A man could pick out any number of carriers he wanted.

Q. Here is what you said on that: "A man could pick out routes that would apply to fifteen carriers. If a man took all day to find

a route."
You say at one place four or five, and in another you say probably

six

A. I said it could be that many. Those routes are apt to be a short line. You can start it out of Texarkana and give it to one line and another all the way down.

Q. Is not the usual shipment of shipments of that sort that pass over the Iron Mountain and Cotton Belt via the Pennsylvania into Texas, constituted by three—

A. I would say four. Some other line would probably have a

part of that business; deliver to the Vandalia.

Q. That is a Pittsburg line?

A. It might not. Those agents are pretty busy. I would say four, two East and two West. You can take one of those little lines in Texas—

Q. But I want to know what was the source of your information concerning this? Whether you were speaking advisedly when you said five or six.

A. I think I said four-

Q. No, you said five. You said the average would be four or five.

A. That is what I say now; four, or possibly five; not three.

Q. This is the point to which I want to call your attention:

Does the increase or multiplication of the lines handling the shipment affect the reasonableness of the rate of the cost of service?

A. Yes, to a certain extent, I think so.

3039 Q. Then, that is a very material matter, is it not?

A. I think the number of lines handling a shipment materially increase the—

Q. It is not likely that it would exceed four?

A. I should say four and possibly five, Judge. It could be handled on three lines. I do not like to be in excess, but I should

say four or possibly five.

Q. What would be the occasion of a shipment originating at Pittsburg on the Pennsylvania Lines going-upon any other line than the Pennsylvania between there and St. Louis?

A. A good soliciting agent.

Q. But, Mr. Bee, the Pacific Company controls lines to East St. Louis, does it not?

A. That is true enough and the Pacific lines would accept that

business at other points than Pittsburg.

Q. I am taking Pittsburg, though, and the territory reached by

the Pennsylvania.

A. Let a shipment originate at Pittsburg, where the Pennsylvania or some subsidiary line would accept that at other points, and a good soliciting agent would solicit a part of that for his own

Q. The Pennsylvania Lines have continuous lines to East St. Louis; the Iron Mountain or Cotton Belt have a continuous line

from St. Louis to Texarkana-

A. Yes

Q. —and there they connect with Texas lines-A. Yes, sir.

3040

Q. —that reach this common point territory?

A. A large part of it. If it was destined to the Santa Fe it would probably have to be handled by some other line in Texas and given over to the H. & T. C. or some other.

Q. The division point of the Mississippi River would be the same, without regard to how many lines handle it through Pittsburg to

St. Louis, would it not? Do you know about that?

A. The divisions East and West are the same.

Q. Without regard to how many lines?

A. But the question North and South, West of the river, would be a different proposition according to what I understand. Probably the Missouri Pacific have an arbitrary figure that they would take up to Texarkana and let the lines South divide the balance. Those are tariff conditions, Judge, that I would much prefer you would not ask me about. It is easy for your people to hand you the tariff.

Q. I want to ask you if you went into that on your direct ex-

amination-

A. I asked you at the time if you wanted specific instances.

Q. I am trying to ascertain to what extent you were informed in regard to these matters. Do you know the basis of division from Cincinnati points to Texas common points?

A. No, I do not know.

Q. Those are factors used in making that division of rates, 3041

are they not?

A. Absolutely so, and I was giving the general conditions under which the rates were to be divided. When specific conditions are inquired into you can furnish me the tariff so I can give it to you.

Q. If it is true that there is a flat rate, an arbitrary, from Cin-

cinnati and Cincinnati points, and from Pittsburg and Pittsburg points, to St. Louis, it is immaterial in that territory whether freight is trabsported over one or three or four lines.

A. It is immaterial to the lines West of the River.

Q. That is what I mean, these lines engaged in this controversy. A. Yes, but where one line would handle it East of the River there would be three and maybe more handling it West of the River.

Q. What are the three lines that would handle it West of the River?

A. With the I. & G. N. it would have to go through the T. & P.

if it was going through the H. & T. C .--

Q. I understood you to say it would have to be handled by at least three lines.

A. No, sir, two or three; probably three. It would be three if the Missouri Pacific was handling it.

3042 Q. What has been your experience in working with a system of rates from St. Louis to New Orleans and from St. Louis to Little Rock?

A. I have not worked with those rates except a general compari-

son.

Q. Have you had occasion to quote them?

A. I may have quoted those rates in the past; from St. Louis to New Orleans I quoted numerous times.

Q. Have you from St. Louis to Little Rock?

A. Never knowingly. I may have, but I do not remember.

Q. You stated in your examination in chief, as I see your testimony before me, that you had seen the rates and had had occasion to quote them; referring to those two classes of rates.

A. I meant the St. Louis-New Orleans.

Q. You do not mean that that applies to Little Rock rates?

A. I quoted the St. Louis-Ft. Smith rate on numerous instances. I worked with it and compared it, and I presume I compared the

St. Louis-Little Rock. I know I did in cases that I had.

Q. Mr. Bee, I think you stated yesterday—I am not referring to your testimony, I am speaking from memory, that there was a condition existing at Ft. Smith which enabled it to encroach upon the commercial territory of Muskogee.

3043 A. Yes, sir. It is not existing, but did exist.

Q. Did you say that that grew out of river competition?

A. I said in my opinion it grew out of so-called river competition.

Q. Why do you think that, Mr. Bee?

A. Well, because railroad men told me those rates were made on water competition.

Q. Do you know what they really are based on?

A. No, I do not know what any rate is based on except what I am told by the man who makes it.

Q. Is not the Ft. Smith-Little Rock rate plus a differential?

A. I presume it is.

Q. Is not the Little Rock rate the Commission rate from Memphis plus the bridge arbitrary?

A. That I do not know.

Q. If that is true, and I think it is in evidence in this case that that is the basis of it, are you not mistaken in saying that so-called river competition fixes the Ft. Smith rate and enables it to encroach upon the territory of Muskogee?

A. Do you mean the St. Louis rate to Ft. Smith and the New York rate to Ft. Smith is made by a differential over Little Rock,

which is made by the Commission-

Q. I mean this: that in effect the Ft. Smith is the Little Rock rate plus a differential; the Little Rock rate from Mem-3044 phis is the Arkansas Commission rate plus a bridge arbitrary.

The St. Louis rate is that plus thirty cents and then East at other central points it is differentials in different amounts-New York one, Pittsburg another, and Chicago another: that is the way those rates are built up.

Mr. HILL: Are you referring to class rates or commodity rates? Mr. Moore: I am referring to first class rates.

Q. What I ask you is this: can it be correctly said that water competition fixes the Ft. Smith rate in view of those facts?

A. If you say that the New York rate is made on a differen-

tial-

3045

Q. I do not say the New York rate: I am talking about Pittsburg, Chicago, Cincinnati and places of that sort: perhaps New York conditions would be different.

A. New York conditions are what I was referring to. Our rate

from Galveston as compared-

Q. What was the character of the tonnage of the Ft. Smith? Did you confine it to some particular tonnage?

A. Merchandise from seaboard territory and hardware; different

things of that kind.

Q. How is that affected by so-called river competition, even from New York? Explain that to me please

A. I mean that the state freight rates to Ft. Smith are made

on river competition from New Orleans.

Q. If that is the case and if they were lower rates and control the situation, as explained, where in St. Louis and other territory to which the distributing merchandise is consigned would not the business of all that Western territory be swallowed up by New York, because, if New York and its facilities for ocean transportation can fix a rate into Ft. Smith, it can into Little Rock, can it not?

A. I guess it can, but I did not say it fixed the St. Louis rate from

Little Rock, or the Cincinnati rate to Little Rock.

Q. You mean that the New York rate was circumscribed and fixed by that?

A. Exactly-whether other rates bore on that I do not know. Q. Do you mean to say that the effect of that was so extensive and so broad as to enable Ft. Smith to swallow up the businessthat Muskogee wasA. I would not use that term "swallow up" Judge.

Q. It came to the door of Muskogee?

A. Yes, on certain commodities, and the railroads realizing the condition reduced some Muskogee rates, some Ft. Smith rates.

Q. On what commodities were those?

A. I remember hardware and merchandise. 3046 Those are the only two things I remember. There were a number of things. At a conference between the railroads and Mr. Sangster those conditions were changed.

Q. I got the impression from your statement that you were describing general conditions, but it seems only special conditions in certain commodities, in which New York would be the basing

point.

A. They are seaboard rates that were causing the trouble.

Q. Being the rate clerk of the Commission, you know more about it than I do. I will not ask you to give the rates, but I wish you would explain to me the manner in which the Little Rock rates are built.

A. The Little Rock rates?

Q. Yes?
A. I have never gone into the Little Rock rates to find out how they are built. I have had no occasion to go into them.

Q. In what litigation was it that you pointed out the disparity

that you referred to in the Santa Fe rates?

You said that you discovered and pointed out where the Santa Fe rates charged on interstate business from Kansas City to all points on their lines in Oklahoma, or a large number of 3047 points, the rates were in excess of the combination of locals,

A. The Commission proposed to reduce the class rates in Oklahoma—I believe that ruling was sometime in April—and I suggested or proposed on the hearing, a scheme of rates for application

in the state of Oklahoma.

Mr. Koontz found I had reduced fifth class to what he thought was an unfair basis and insisted that my idea in that was to make a way to "skin" what was known as the through rate from St. Louis to Kansas City, especially Kansas City to Oklahoma points, and showed how much it would "skin" the rate by using the regular published rate from Kansas City to their station in Oklahoma, Chilloco, and from there south using the Commission rates.

I denied it but he insisted that that was my idea, so after I got off the stand I took his local rates as they exist today in the state of Oklahoma, and added them to the published rates from Kansas City to Chilloco, and found out I had in a number of eases made

a lower rate than he was carrying.

Q. You stated that when you point that out you think it will be corrected?

A. I presume so.

A. It would only require a suit before the Interstate Commerce

Commission to correct it. Under the Commission's decision the combination of locals should at all times be the through 3048 rate—the through rate should never exceed the combination of locals. They are both voluntary rates. They belong there in effect and are prima facie considered reasonable. The difference is slight-from one to three cents.

Q. You state it is impossible for there to be any relation between state and interstate rates and you base the statement upon the ground that the difference in distance is so great that a rate made

on one basis would not apply on the other?

A. Further, the competition element entering into it.

Q. Explain to me now in what way the difference in distance would preclude the possibility of a relation?

A. I don't see where a relation can come between a rate for 400

and a rate for 50 miles.

Q. Let us assume that in the state of Arkansas, wholly, a commodity is shipped for twenty-five miles on a rate that will afford a reasonable compensation for the service involved in that length of

There is another shipment of the same commodity going 300 miles, on a rate that will afford compensation for the service in-

volved in the haul of that commodity:

There is a very material difference in the length of the haul, but may there not be a relation, notwithstanding that 3049 difference in the length of haul, as between the rates, in so far as the principle upon which those rates are predicated, is concerned?

There is only one condition in which I see there

would be a relation between state and interstate rates.

If it could be definitely ascertained that the cost of moving a commodity was a certain given figure per ton per mile-that there was a known cost of handling, then there could be a given rate per ton per mile, whether it moved 100, 200 or 1,000 miles. added to that would be the terminal expense at each point of origin and each point of destination in the United States.

Then you would have a relation between state and interstate But until that time comes-which I am glad to say never will come—there can never be a relation, in my opinion, between state and interstate rates, based on other than a competitive basis.

Q. That would be what you would call an ideal condition, would

it not?

A. That would be an ideal condition.

Q. We do not expect to attain perfection in anything in this world-

A. I don't want to see it in existence, either.

Q. If the rate is based upon the cost of service—if the classification on which the rate is made, is made with reference to the different elements that enter into a rate-the factors in determining the cost of service, does that not create a relation between the two classes of rates built up on that principle?

A. No, sir; for the simple reason that state rates are invariably

built upon a mileage basis, while interstate rates are generally built upon a specific basis from and to a given point. The state rate does not take into consideration as to whether it moves from a large or small terminal. There is no question but what a shipment can be handled at Britan, Oklahoma, at a much cheaper figure than it can be handled at Oklahoma City, and if that shipment originated at Britan and is destined to Moore—a distance of approximately thirty miles, and a similar shipment originates at Oklahoma City and is destined to Guthrie, a similar distance, there can be no relation between the cost of handling those two shipments; none whatever. So how can you build an interstate rate that would compare, with those two shipments, which are absolutely dissimilar?

Q. On what ground and what principle did the Interstate Commerce Commission act in establishing a rule that a rate which exceeds a combination of locals would be prima facie unreasonable—is that not a recognition that a relation between state and inter-

state rates exists?

A. No, sir.

Q. What is the underlying principle upon which they

3051 act in that regulation?

A. Well, that is a different proposition entirely. If the rate from St. Louis to Wichita is 16 cents, and the rate from Wichita to Oklahoma City is 16 cents, there certainly is no reason existing why a rate from St. Louis to Oklahoma City should be 32 cents. It would certainly incur more expense in the handling—the loading and unloading of that shipment at Wichita, than to pass through Wichita. I don't know what was in the mind of the Commission, but I presume that was the basis upon which they established that principle. But they have gone further, Judge, and said they would not consider a state rate—a commission made rate, a legislative rate, as one of the factors in those conditions.

Q. That is immaterial to the matter we have in hand here

now-

A. They say when a railroad voluntarily makes two rates, it cannot make a rate in excess of that for the haul over the entire district.

Q. Do you recognize the fact that the state rates, commission

rates, do influence the interstate rates?

A. To some extent they might do it, yes, sir. In some peculiar interstate rates.

I can realize in your state very easily, that a state rate would influence a rate from Memphis. I can realize that in our state, a state rate would have some effect upon the Fort Smith rate.

Q. It is in evidence in this case that a rate was established by the Arkansas State Commission, of 13 cts. a hundred on sugar, for a distance of three hundred miles—there is no traffic of that kind that the rate covers, in fact—but the gentlemen who are members of that Commission testified that that rate was made for the purpose of causing the decrease in the rate from Missouri, by some line of railroad going from Texarkana to New Orleans.

The trains in Texarkana wanted a lower rate for the purpose of

bringing the interstate down to that basis—that is, a state rate—and

it accomplished that purpose, naturally.

A. That is a foregone conclu ion. There is no doubt but what a state if it has a mind to, can in the exercise of its power absolutely abolish interstate rates or do what they please with them. I think there are very few commissions that have ever done it. one case in our state. The rate on cotton piece goods, mixed carloads of dry goods pass through Oklahoma—rate 42 cts. a hundred pounds—lower than they would stop it in Oklahoma. They carried it up on to Kansas City for 42 cts. per hundred—cheaper than they would stop it in Oklahoma. It was shutting our merchants out of They could not compete, less than carload, with dry goods, business. with the merchants in Kansas City.

Our Commission immediately should have proposed an order to establish a rate within the state on dry goods. It was said that

the rate was to be used in making a rate from Ringold, Texas, from Tarroh, Oklahoma, to different towns in Oklahoma, re-3053 gardless of what use it was intended for. It never went into effect because the Katy immediately reduced their rates from Galveston and the rate never went into effect.

Q. Does that signify any relation between those two classes of

rates?

A. No, it would signify that the Commission within the state to protect their own people forced the railroads to do justice.

Q. Forced them to put in a new rate that forced them to change

their interstate rates?

A. They did not put in any rate, but the idea of the Commission proposing a rate which if it was put in would have made the same

rate to Oklahoma City-

Q. It is in evidence in this case that the Commission's rate established in Arkansas produced quite a revolution in northwestern Arkansas upon the rates of the Frisco road, and the rates were put in with that purpose in view-I will call your attention to -his testimony.

Judge Wallace, Chairman of the Railroad Commission, was asked

this question:

"Q. Now, your Commission had no jurisdiction to regulate rates into jobbing points from other states?

A. We could influence them, but not regulate them.

Q. In what way could you influence them?

A. We could influence them in this way—that would be hard to explain, but interstate rates are influenced more or less by local rates; for instance, rates consist of a combination of the locals; in interstate, the through rates cannot be higher than

3054 the combination of the locals; freight rates are lowered here and that cuts down the combination of the locals, and in that way it influences interstate rates, especially inbound rates."

Q. Then he says, to illustrate the statement he made there:

"Prior to the promulgation of the Commission's tariff, the Frisco Railroad had interstate rates effective at stations in Arkansas, north of Ft. Smith; that is on its line north of Ft. Smith, with which the

Fort Smith jobbers could not compete; it gave the Missouri points practically a monopoly of that trade, or at least it was so represented to the Commission. The effect was to give the trade to Missouri points, and stations on the line of the Frisco, north of Ft. Smith; as a consequence, the Commission's tariff had no effect-its local rate which was effective anywhere in Arkansas-had the effect to just reverse the order of things, and transfer that trade at all stations north of the line practically to Ft. Smith, and then, of course, the Frisco would have had to lower its rate from St. Louis and other interstate points in Missouri, north of the Arkansas line, in order to have enabled those interstate merchants—that is, interstate as to us, to compete with the Ft. Smith jobbers; now, the same condition of things was applicable in some instances, to a portion of the traffic of all through long line roads. The effect of it would be, of course, not necessarily as I understand it, reducing their revenues or income, but lowering the rates so as to give Arkansas competitors, as to all classes of traffic while between Ft. Smith and north of the Arkansas

Is that in accord with your views as to the effect of state rates?

A. Yes, sir, and I think it is justified. We have a condition existing on the Kansas City Southern. They have a peculiar tariff of rates in effect to Ft. Smith,—that same tariff on a mileage basis is not in effect from stations in Oklahoma, with the result that no jobbing house can do business in Oklahoma, on the

Kansas City Southern.

As soon as the class rates of the Corporation Commission of Oklahoma go into effect—which will be issued in probably ten or fifteen days—they will materially change that condition, and it won't be an unjust change, because the Kansas City Southern has—refused to permit stations in Oklahoma to job on its line.

There will be a condition where the state made rate will influence an interstate rate, and fairly so, and I presume the same condition exists on the Frisco,—they are giving a low rate, what they call their "jobber's special," as well, and making Arkansas pay the

penalty.

Q. I am not assuming that the action of the State Commission was improper or unfair. The significance of this power of a State Commission to influence interstate rates, is this, is it not, that it shows there must be a relation: otherwise how can a State Commission by its regulation as to rates influence the interstate rates?

A. There is a competitive relation, a commercial relation, which

I admitted from the first, Judge Moore.

Q. How does that bring about that result of putting the two classes

of rates on some little parity.

A. It comes about due to the fact that the railroads in 3056 order to—that the railroads must again cut its rate to meet those made by the state and when they do that they show very plainly that they are not making the rates on the cost of service. and they have in a different scale of rates, which they did in Arkansas, presumably, from their testimony, allowing the Missouri merchants to get that business, their rates from Missouri and Ft.

Smith were not both built on cost of service, or else Missouri merchants would not have the advantage.

- Q. You are speaking about voluntary rates?
 A. Yes, sir.
 Q. That brings up two conditions: one is the Interstate Commerce Commission holds as to voluntary rates, that an interstate rate which exceeds a combination of locals is prima facie unreasonable?

A. Yes, sir. Q. That is voluntary? A. Yes, sir.

Q. The record in this case shows that the instances about which we have been talking and the commercial conditions you speak ofbut let that be what it may-are such that a commission rate will have the same effect upon the policy of the railroad independent of the ruling of the Interstate Commerce Commission, and they work out the same result?

A. There is no cost of service in that whatever-

Q. You are talking about the relation?
A. I said that there was no relation from the cost of 3057 service standpoint. I have admitted that there was from a commercial standpoint and I still insist that there is.

3058 Cross-examination of Mr. Bee resumed.

By Mr. Moore:

Q. Mr. Bee, you were speaking in your examination in chief in regard to freights transported from St. Louis to Oklahoma points:

You say this freight comes in competition with Atlantic Sea Board freight handled via Galveston, and in competition with German and English made goods handled via steamers; that there is a very low rate, practically brought over as ballast, and so on:

What class of commodities did you have in mind in your reference to competition with German and English made goods brought over

in those steamers?

A. Dry-goods and boots and shoes—not German made boots and shoes-dry goods, silk goods and general ladies dry goods department notions; crockery, hardware and stuff of that kind.

Q. Do you mean to say that that sort of goods is brought over

practically as ballast?

A. I say it is brought on low rates at times, which would be virtually ballast. Boats coming over for cotton, they will take any com-

modity then can get at most any rate.

3059 I saw a figure the other day where a boat had brought crockery from Liverpool to Galveston; unloaded it, reloaded it and shipped it to San Antonio cheaper at the through rate than crockery could be moved from east Liverpool, Ohio-I think that is the crockery point—to Kansas City...

Q. Is there any large movement of commodities of that kind from

European ports to Texas?

A. I understand there are large movements of hardware and heavy shelf goods from European ports to Galveston.

Q. There certainly is not much general merchandise?

A. Some general merchandise comes through there, the kind I do not know.

Q. Do you mean to say that that is of sufficient volume to influence

the railroad rate from St. Louis into Oklahoma?

A. I think to a certain extent. They meet the Galveston rates. The rates are practically the same from St. Louis to Galveston, but I think the Atlantic Seaboard is the principal factor. I don't think the European itself is much of a factor. Merely the last drop in the bucket. I merely mention all the factors as I saw them; not any specific factors.

Q. You attempted to compare a movement of lumber from mills in Southern Arkansas, from the forest to the mills, and from the

mills to Little Rock, with shipments to interstate points:

Your attention has been called to the reciprocal tonnage that the railroad companies involved in this litigation get in con-

3060 nection with that business:

Is there any tonnage going south from Little Rock that would balance the lumber hauled to that place, from that section of the state?

A. I imagine there is grain, cotton and some commodities moving

from Little Rock south.

Q. Have you any information upon that subject?

A. No, I have no information on the subject that they have any reciprocal tonnage from interstate, either.

Q. I believe you say that ten cents a mile is the ordinary charge for moving new empty cars?

A. No, that was the Missouri Pacific charge.

Q. The Missouri Pacific?

A. Yes, sir. I do think it is the ordinary charge but I did not

say it was. I said the Missouri Pacific charge.

Q. So that the distance is not a distinction of the reciprocal tonnage, would be a matter of considerable importance in determining the relative expense of moving freights of the character we are speak ing of?

A. In moving any freight it would be a factor, Judge.

Q. I believe I called your attention once before to the conditions under which lumber is shipped from the points you refer to to Little Rock. That is to say, the rates to which your attention was called by Judge Hill, 22 cents to Little Rock, I believe it was, apply only

to lumber that is shipped to that section from lines other than

3061 those that reach Little Rock?

Now, in view of that fact, do you know whether it is or is not a fact that there is no lumber moving into Little Rock on that 22c. rate—that is practically?

A. I don't know whether any moves in there or not, Judge. I am not familiar with the specific conditions over there and can only

testify generally.

Q. The rate on lumber from points in northern Louisiana on the Iron Mountain to Little Rock, is 14 cents on yellow pine and on the

Cotton Belt it is 16 cents, and that rate of 22 cents which Judge Hill called your attention to, applies only from points in Louisiana on lines other than those reaching Little Rock:

It would hardly be reasonable to assume that a Little Rock man

who wanted lumber, would seek the higher rate, would it?

A. Yes, I should imagine that man would seek the higher rate or else the rate would probably not be in. There must have been some movement to cause the rate to go into effect. The man at the mill may be able to manufacture his lumber at the 22c. point cheaper than the man at the 14c. point—

Q. Do you think that the dealer at Little Rock would prefer to

pay the 22c. rate rather than the 14 or 16 cent rate?

A. Not the dealer at Little Rock, but I think the mill man would probably absorb it and thereby puts the lumber to the dealer—

Q. I am speaking about the man at Little Rock, who has occasion

to purchase lumber from that section.

A. If you will allow me to explain that. We have just been through a severe lumber case. We had lumber men from everywhere testifying before our Commission and they invariably testified that lumber was sold f. o. b. cars at the lumber yards. So the difference in freight is not a matter that the dealer in Little Rock would take into consideration, if the conditions that the Louisiana and Texas mills testified to are correct:

Q. It would be rather a novel exhibition, would it not, to see a man, whether he is a lumber man or whether he is a purchaser, without regard to whether there was any excess that might be absorbed by somebody, as in the case you are putting—leave the relations and the dealings between the lumber purchaser and the lumber buyer out of the case: the question I ask you is, if it would not be a peculiar condition to find that the man would pay a 22c. rate when he could get a 16 and 14c. rate?

A. No, I see that in Oklahoma every day, where they are paying 23, 24 and 25½ cents—I think that is the maximum rate—when they can get an egiht, ten, 12, and fourteen cent rate, as the maximum

mum. Those are commercial conditions, Judge, which equalize themselves.

Q. So there are commercial conditions applicable to other conditions than railroads, then?

A. There are, where railroad freight is concerned.

Q. Can you recall and tell me what the rate on first class commodities is, in your state?

A. From where?

Q. Different points in your state?

A. I will read it if you will permit me to do so and not trust to my memory.

5 miles						•	٠	•	•							 			9		٠				.13	cents.
10 miles		9	٠							•	٠	•	•			 									.15	cents.
15 miles				9												 									.17	cents.

20 mi	iles.																	 				19	cents.
25 mi	iles.																					20	cents.
30 mi	les.			110																		22	cents.
35 mi	iles.																. ,	 				24	cents.
40 mi	iles.			١.														 				25	cents.
45 mi	iles.																					26	cents.
50 mi	iles.																	 				27	cents.
55 mi	iles.																					29	cents.
60 mi	iles.																					30	cents.
65 mi	iles.																					31	cents.

Q. What does that yield per ton per mile?

A. At what point? Q. Say 50 miles?

A. I want to say that these are the jobbers' rates, I am quoting. which move about 93% of our business.

Mr. HILL:

Q. Are they the voluntary rates of the railroad?

A little over a cent per ton per mile, for 50 miles.

Mr. Moore:

Q. I ask you that in connection with a statement you made yesterday regarding the rates from St. Louis to Mulhall: you 3064 stated that the distance to Mulhall was 590 miles?

A. Approximately. Q. And the distance to Oklahoma City was 640 miles; I want to ask you if the distance to Mulhall via Kansas City and thence on the Santa Fe route beyond Kansas City, is not 625 miles?

A. I would not be surprised.

Q. That makes quite a difference, does it not?
A. Yes, sir.
Q. Instead of a difference of 50 miles it makes a difference of 15 miles?

A. But the distance via Omaha, Nebraska, is much greater. Q. Does that not make a difference in the application of the rates?

A. What is that?

Q. The difference of 15 miles in that distance of 640 miles?

A. It would not make much difference. If you figure right on to Oklahoma City-you should figure right onto Oklahoma City via Mulhall if you are going to figure via Kansas City. I was taking what I presumed was the shortest mileage between the two points and was trying to give you the advantage of the short-line.

Q. Is not the Kansas City line the natural line for shipment from

St. Louis to that district to take-

A. No, sir, I think the Katy is the short line to Oklahoma 3065 City by probably 50 miles.

Q. That is to Oklahoma City?

A. Yes, sir.

Q. How is it to Mulhall?

A. I think the route to Guthrie and back haul would be shorter than via Kansas City.

Q. What would that be?

A. I think about 590 miles, it is my recollection. I may be slightly off in those distances. I never figured them before I came here.

Q. What is the revenue per ton per mile on each one of those rout-

ings?

A. If you call those figures again, I will gladly give it to you.

Q. The distance you assumed was 640 miles to Oklahoma City and 625 miles to Mulhall.

A. There would not be enough difference between those two rates

to find it.

Q. Well, say 590 and 640, put it on your figures.
 A. One approximately 40, and the other 44 mills.

Q. You were mistaken then when you said the haul from St. Louis to Oklahoma would be 20 mills, and from St. Louis to Mulhall would be 22?

A. Yes, I see where I made my mistake. I forgot to reduce it to tons. I divided the rate on a hundred pound basis instead of taking it to tons.

Q. Since you have corrected that, do you not find that one rate is less than six mills and the other is 40.6?

A. One will be 40 mills, plus and the other 44 mills, plus. Q. Now, take it on the Santa Fe road, assuming one is 625 miles

and the other 640 miles.

A. If you take straight Santa Fe the one 625 and the other 640. Oklahoma City on the Santa Fe is about 40 odd miles—between forty and fifty miles—south of Mulhall.

Q. I said assume that the route to Mulhall routed via Kansas City on the Santa Fe—I understand that makes a routing of 625

miles. Figure it on the basis of 625 and then on the basis of 640.

A. The one would be 40 mills, plus, and the other 41 mills, plus. Is that close enough?

Q. Those differences are not very striking, are they?

A. No, they are not striking differences.

Q. The reason I called your attention to this is that you brought that in voluntarily as an illustration of the proposition in which you said positively and absolutely that there is no relation between state and interstate rates:

What light does that throw on that question?

A. I figured four mills difference which there is between the Santa Fe handling both of those shipments and if there is four mills difference, there is certainly a difference in the cost of service, and both of those figures cannot represent the cost of service. If there is only one-tenth of a mill difference both figures cannot represent the cost of service. And that is certainly true when

railroads handle lumber at six mills per ton per mile and the difference in handling this merchandise from St. Louis

is four mills per ton per mile. There certainly is an element of cost in there that is not taken into consideration.

Q. In order to get that difference you have to select a particular routing?

A. The Santa Fe would have to-

Q. If you route it in the way I indicate it, it is about one mill difference.

A. But the Santa Fe could not handle it that way. Q. Assuming that it could handle it that way?

A. It is a physical impossibility for the Santa Fe to handle it at a distance of 640 if the mileage to Mulhall is 625. If you are going to figure the Santa Fe you must figure that straight through.

Q. What I asked you to do was to figure it on the basis of a rout-

ing via Kansas City and beyond there

A. For the Mulhall-

Q. On that route that you speak of as 640 miles?

A. I was figuring them both being approximately short routes, what I consider short routes.

Q. In your examination in chief you undertook to show the relative rates per ton per mile, the relative amount of revenue per ton as between state and interstate less than carload business:

3068 I believed you worked out that the railroad company secured on interstate business \$1.90 per ton and that from state business they received \$4.84:

Please tell me how you worked out those results?

A. I explained at the time, Judge, that if the rate shown in this exhibit No. 26—which I understand is a railroad exhibit— shows that the average rate per ton per mile on interstate business destined to Arkansas, is 33. mills per ton per mile; the average rate on state business in Arkansas for the same period was 67. mills per ton per mile. The average haul on state business was 57. miles and I multiplied the rate per ton per mile on interstate business by that 57.18 and the rate on state business per ton per mile by 57.18 and it gave me the figure that was received by the road on each class of business per ton; subtracting one from the other it gives a difference of \$2.94.

Q. The rate per ton per mile on interstate business is 33.?

A. Yes, sir.

Q. In order to get the amount realized the revenue yield per ton on that business, you multiplied that by the average haul of state business?

A. Yes, sir.

Q. Do you not know that you cannot get that result in that way?

Do you not know that if you want to get the yield on interstate business that it is necessary in order to do it to multiply the rate received per ton per mile by the average haul of

interstate business and not state business?

A. If you want to get the total revenue.

Q. We are talking about the revenue per ton.

A. No, sir, you don't have to do that.

Q. On what ground are you justified in multiplying that rate

received per ton per mile on interstate business by the length of the state haul? That is absolutely impracticable.

A. No, sir, it is not absolutely impracticable.

Take a point on the Missouri Pacific starting at the state line— I believe the average interstate haul was 100 miles, I am not sure of that figure, we will take that line from the state line to a point 109 miles in Arkansas, calling that station X, regardless of its name, that being the average haul on interstate business within the state.

Now, we take a point 57.18 miles between that point X and the state line and we call that station Y, calling the state line W:

The haul from W to X represents the average interstate haul on

less than carload business on 109 miles.

The haul from Y to X represents the average state haul, or 57.18 miles:

My proposition was to see the amount of revenue secured by the Iron Mountain Railroad on interstate business moving the exact

same distance that state business did.

3070 In other words, between X and Y, and the only way to do that is to multiply the average revenue received by it by the haul that was performed on state business, multiplying 33. by 57.18. That gave us the figure of \$1.90 per ton. And upon the same business, state, moving between identically the same points, it received a revenue of \$4.84.

It is feasible at straight mathematics.

Q. Does not that exhibit itself show the revenue on state business per ton and also on the interstate business?

A. Yes, sir.

Q. Is it all figured out there?

A. Yes, sir.

Q. What is it on interstate business? A. The total revenue?

Q. Revenue per ton.

Q. That is per mile. Look at the exhibit and tell me what it is?

A. Oh, yes, \$3.63. Q. What is it on state business?

A. \$3.84. But you must take into consideration in considering these figures that one moved double the distance-

Q. If they moved the same distance the rate and yield would have been the same?

A. I don't know.

3071 Q. Would it not, mathematically?

A. No. sir.

Q. Is it not the difference growing out of the fact and does not that make the ratio of about two to one growing out of the fact that it costs practically the same to move the interstate, 109, as the state, 57.18 miles?

A. No, it costs considerably more, in my opinion, from what I

know of handling the freight.

Q. What did you say was the yield per ton on the state?

A. \$3.84.

Q. You have it here \$4.84: in your testimony you say that from state business moving the same distance the railroad receives 67.

mills or \$4.84 per ton.

A. I never took that factor at all. I never took those figures at all excepting the total, and I worked that out hurriedly on the morning before I came on the stand. Those figures (indicating exhibit) have been worked out on an adding machine and I prefer to take them, anyway.

Q. What is that?

A. Those figures have been worked on an adding machine and mine have not. I prefer to take them. I have the same figures, exactly, \$3.84, and 67. My figures must be an error to the extent of carrying one figure.

Q. In speaking of the revenue of the Cotton Belt road you were asked by counsel what would be the fairness of dividing expenses

between state and interstate traffic on the basis of the reve-3072 nue received from each class and in answer to that question you denied that it could be done and then you gave the reason.

A. Yes.

Q. You say that because in the example that you worked out (referring to the example to which I have just now called your attention) the railroads get \$2.94 a ton more revenue—

A. That should be \$1.94.

Q.—from state than from interstate, and while their entire revenue from interstate terminating in Arkansas is \$1.90 they receive an additional \$1.04 for the extra terminal than they get for the entire handling of the other shipments:

Now, that was a mistake, was it not?

A. To the extent of one dollar.

Q. Mr. Bee, all the statistics in this case from the beginning to this time have shown that the average returns or revenue on state business per ton per mile is about double that on interstate.

A. So I understand.

Q. A little less than double. The statistics from the beginning show a relation of about 6½ to 13, somewhere about that, with an average haul of one-third the length of the interstate haul:

Does not this example you brought out come back to that old proposition that has been conceded by all parties in this case?

A. The facts have been conceded. That brings it back that the

revenue is two to one for a haul of three to one.

Q. This average amount of revenue received per ton per mile on the interstate freight of 33 and a fraction simply shows how much it costs to haul those one hundred and nine miles—that is, how much is received—the yield on the haul of a ton of that class of freight 109 miles as against a yield on the haul of the same kind of freight 57.18 miles, does it not?

A. That does show that, yes. It shows that the railroad companies receive more than double for less than one-half the haul.

Q. Is it not also based upon the proposition that the average interstate haul is really greater than 109 miles?

A. You mean the double haul?

- Q. Of the interstate haul? While the average has 109 miles, in most cases the interstate exceeds 109——
- A. I think that interstate hauls as a whole exceed 109 miles.
 Q. I mean the interstate haul in the statistics that have been used in this case, that represent that part of the interstate haul

located in the state of Arkansas?

A. That is true.

3074 Q. And it results necessarily that in many instances it involves a much larger haul than that shown in the state of Arkansas?

A. It indicates a longer haul.

Q. Does it not follow that this cardinal rule of cost of transporting freight, that as the distance increases the rate diminishes? Does not that come into play and produce that result?

A. Only to a certain extent.

Q. That is one of the factors—

A. But the state of Arkansas cannot take into consideration the fact of what it costs to haul in some other state or how far it moved' in some other state. It is entitled to revenue from interstate busi-

ness moving within the state.

Q. Applied to the 109 in the state of Arkansas as against 57.18

miles and you have there practically three hauls to one-

A. No, two to—a little less than two—114 as to 109, dropping fractions.

Q. It is analogous and pretty close to the difference in the revenue per ton per mile, 33 and 67?

A. That is true.

Q. And does it not grow out of that rule which applies to all transportation problems, that is, as you increase the length of haul you diminish the rate?

A. It grows out of that and I think it can be abused. I think it has been abused with these figures if you compare the two.

3075 Q. You lost sight of that, did you not, when you worked

out that? As an example as bad conduct on the part of the railroad?

A. No, sir, not as an example of bad conduct on the part of the railroad. I worked that out to show that the state rates as they are built and as they are charged and as they show in this exhibit, pay whatever extra cost there is of doing state business and they pay double the rate for moving over each mile than an interstate shipment does. The only idea that we ever have in saying, the longer the haul the cheaper it becomes to haul it, is because the terminal expenses must be taken of- at both ends of the line. If the haul is ten miles then that ten miles rate must take care of those terminal expenses. If the haul is 1,000 miles, then the one thousand mile rate will take care of those terminal expenses.

It means a smaller unit to apply on that terminal expense, but it does not mean two to one on a haul of this kind, in my opinion. Q. We will come to that in a moment, but I want to ask you now, are there not other factors and factors of importance than the mere length of the haul itself affecting the rates that should be charged, and the cost of the service, and what it means to the railroad to handle freight a long distance and a short distance.

A. Not after it moves over one division, passes one di-

3076 vision.

Q. You repeat now what you stated in your examination in chief, that it is only one additional terminal expense that creates the difference?

A. No, I say there is no difference in the cost of the haul after it passes over one division.

Q. What do you mean by that?

A. If a shipment originates at a small point, the cost of haul is probably more expensive to the next terminal than it is anywhere else.

Q. Please explain that.

A. It is handled on the local train and would probably be handled up to that terminal point. Then the cost of service will be just the same from that terminal to the next terminal and as to each succeeding terminal, if the road condition grades and everything of that kind are the same.

Rates are not made upon a difference of one terminal as against another terminal—

Q. Now, let us see: there has been some testimony in this case about over-head expenses, general expenses: would that have any influence upon that proposition?

A. Not any whatever. The over-head expenses apply just the

same on one division as another division.

Q. Take two hauls, one of 50 and the other of 150 miles in length:

In considering the expense involved in those two hauls you say that after you pass one division the expense is the same, and in your examination in chief you said there was a difference of more than one terminal expense.

A. The additional haul takes care of that and I explained that

just now.

Q. I know, but I want to call your attention, first, to the effect

of these fixed expenses:

If there is a fixed charge in any business, railroad or any other, that must be met, that is applied to all the business, is it not, in proportion that the business will yield a revenue?

A. That is true.

Q. Well, if you apply that in this case would there not have to be a-

A. I see what you are getting out: if there are 100 cars moving over a division you would apportion a less figure than if 50 moved over the division. There is something to that—

Q. Then, Mr. Bee-

A. —but it would cost just as much to haul over the next division

and the next division, because those over-head expenses would again go down on the card.

Q. I believe it was stated by you or some other witnesses, that the

length of a division is usually 100 miles.

A. The present divisions are around 100 miles, I understand.

3078 Q. Take what we have here: we have a state haul of 57.18 miles in average length and an interstate haul average length of 109 miles: what effect would that have upon your application?

A. The length of haul would exact the decrease expense.

Q. You have two division points there, to go from one division to another in the interstate haul, while you are within one division

in the state haul-

A. If you pick your haul right.

Q. You have to average it?

A. I don't think you can average it; if they stay in one division.

Q. The statistics in this case show that the average haul of interstate freights is 224 miles and the state freights 70 miles in the state of Arkansas:

The evidence of Mr. McPherson, the Assistant General Manager of the Iron Mountain, and Mr. Ward, General Manager of the Burlington, show that in handling a given tonnage of state freight a distance equal to the average haul of state, in Arkansas, that the service involved would be at least eight times as much as it would in moving the interstate freight.

I will ask you if the statements of those witnesses are correct. I suppose you have read the testimony in the case and know what

it is?

A. I have not read the testimony in the case on these particular points, but I have seen similar statements from

other general freight agents.

As to whether they are correct from their view or not, I don't know, but it certainly is not my opinion. I don't wish to say their statements are not correct, because from their view they probably are, but I fail to find any man who can substantiate the fact that it costs eight times — to do state business than it does to do interstate business. I fail to have the elements pointed out to me that shows that it costs eight times as much.

Q. Assuming for the purpose of my question that their statements

are correct:

In that event, ought there not to be a very much larger yield derived from the transportation of state freghts than from interstate?

A. I should say an exceedingly much larger revenue from state

than interstate if their statements are correct.

Q. In that connection, I want to ask you if you considered that the experience that you have had in connection with the operation of railroads, is such as to qualify you equally with these operating men who are perhaps twice as old as you are, some of them, and who have devoted nearly all their lives to the study of the problems involved in regard to the matter about which they are testifying?

A. I don't want to have to answer that question because 3080 I hate to put my answer in the record.

Mr. HILL: I do not think it is a fair question.

The Master: That question is simply asking the witness to put an estimate on the skill and ability of other witnesses who have testified in the case and I do not think it is an admissible question.

Mr. Moore: I am asking him if he considers himself as well qualified as others who have shown what their qualifications are.

I think I have a right to do that.

Mr. Hill: I do not think so. The witness has shown at great length his qualifications and they must speak for themselves. The other witnesses have shown their qualifications and they must speak for themselves.

Mr. MOORE:

Q. Have you had any experience in operating a railroad, as an

operating official of the road?

A. Not as an official of the railroad, no, sir, other than the experience I gained directly under officials who had charge of that part of the work.

Q. And that experience that you have related in answer to ques-

tions asked you by me?

- A. I have, with the exception of the experience I have gained since I have been with the Commission in Oklahoma, where I have had the same advantages, if not more, than an operating official, to go deeper into their affairs than probably some of them can go into them.
- Q. Mr. Bee, do you know where the interstate less than carload freight that is moved in Arkansas over these two lines we 3081 are discussing now, principally originate?

A. I have an idea; I don't know. Q. Memphis and St. Louis, is it not?

A. Yes, sir, and Kansas City, I should judge.

Q. Is it not principally outside of grain, Memphis and St. Louis?
A. From my knowledge of these Kansas City merchants, I imagine they go over there and get a lot of business. That would be my idea and knowing these Kansas City merchants as I do and having a direct line into Arkansas.

Q. You just stated a while ago that the average length of haul, if you take the haul of that class of less than carload interstate, out of the state it would be longer than shown on these statistics, 109

miles?

A. There is no doubt about that.

Q. In addition to that there is one terminal expense, is there not, connected with interstate business as against the state?

A. Yes, sir, and that is the only additional expense I think of

state business.

Q. Narrowing it down to that point, does not that difference justify a greater revenue from the state business than from the interstate?

A. Doubtless.

Q. Right along that line, I want to call your attention to another statement you made in the same connection as the 3082 testimony to which I have called your attention already.

You said it must be remembered and taken into consideration that every time a pound of state less than carload business is delivered there are two pounds of interstate less than carload business handled: what follows is what I want to call your attention to. Along with what and on the same conditions—

A. I think so.

Q. If the conditions to which I have called your attention as to the interstate business, it is originating in another state and it is having a longer haul, are true, can it be said of the class of that business that it is handled along with and under the same condi-

tions as state business?

A. This is what I mean by that,-I cannot answer you yes or no, I have to make an explanation of my answer; I mean you take the business originating Little Rock in the state, just as an example, and being handled in the local train to points between Little Rock and the next terminal either way, I mean that in my opinion for every pound of Little Rock business that is delivered, there will be two pounds of interstate freight, destined to that same destination; that has been my experience in the southwestern country, that Memphis, St. Louis and Kansas City in your state, would so handle that traffic that they would deliver more than the Little Rock jobber, as to these little towns, and there is an expense that is incurred on interstate business where they would have virtually three terminals instead of one; it would have a terminal when it come into Little Rock to be taken out of the car, a terminal to be put back in the car, and a terminal when it was unloaded again; Now, the proportion of that business in Arkansas, of course I cannot speak

Q. Are you referring to statements which you have heretofore made, that a shipment of L. C. L. freight from St. Louis to a point north of Little Rock, say thirty or forty miles, will be carried to Little Rock on the Iron Mountain Railroad, and there unloaded into

a local car and hauled back to the point of destination?

A. It might not be hauled back; it might be hauled forwards; it might be hauled back; I believe they do haul some freight

back.

3084 Q. Is that the practice in Arkansas?

A. I don't know whether it is the practice in Arkansas, but it is the practice in other places, and I know some of the roads in Arkansas do follow that practice. I know the Frisco does follow that practice in Arkansas or in Kansas or Texas or Oklahoma.

Q. You made this statement in that connection, you say:

"I have checked these things time and time again—not in the state of Arkansas, of course, but in other states; in Oklahoma, Missouri and some in Kansas, but most of my investigations have been in Oklahoma, and I have found that trains proceeding northward from the heart of Oklahoma carry more freight in their local

peddling trains, which originated at points north of Oklahoma, than they do of freight that originated in Oklahoma. It has simply been brought there in a solid car, split up and then going back for distribution, making a back-haul and receiving exactly the same service that the state less-than-carload is receiving, with the exception of making out the way-bill at the original Oklahoma point, but to counteract that they have unloaded that freight and checked it at that station.'

That is the condition you refer to when you speak of the state

and interstate being carried along under the same conditions?

A. Yes, sir. Q. Does that condition exist in Arkansas?

A. I can't say positively that it does.

Q. Yet you assume it does?

A. Naturally a man has a right to assume experience and knows the condition of other roads, and the general practices of railroads in Oklahoma, Kansas and Texas, he has a right 3085 to assume in his opinions that the same practices follow.

O. I don't question the propriety of it.

A. I said I had never checked in Arkansas; I don't say that the

same condition prevails.

Q. Have you sought any information about that? Have you had any conversation with persons who know and who have looked into that?

A. I have, and I have understood—I don't know about the back freight, I don't remember the statement on that, but that freight going into Little Rock and breaking bulk and being distributed in the opposite direction which would be the same service, and that is a practice and that freight has been found in cars of that kind.

Q. It simply operates to bring that class of freight to the division point in the direction it is going, in handling it from there from the car that brought it there, isn't that a very different proposition from

the other?

A. Yes, sir, the Frisco has issued orders-I am very familiar with their rules because I have worked with Mr. Levy, whom I knew as a boy, worked with him on the formation of his rules; their rule is to bulk everything to the first big town and from there distribute, and I think it is the best policy, and cheapest method that can be adopted.

Q. There is another fact involved in your assumption that for every pound of state freight that is carried, that every

pound of state freight is accompanied by two pounds of interstate freight; that means that the people of Arkansas in their package purchases, buy double as much outside of the state as in it?

A. Not necessarily; it means that Little Rock merchants located a few miles from said Little Rock, Fort Smith and Pine Bluff and Memphis, are buying their stuff just as much outside of the state as they are in.

Q. Doesn't mean buying twice as much?

A. Yes, sir, and I think you will find that is true; that is the effect I have generally found, and I have simply used that; your facts in this case will bear out this statement on that, I think; if I am incorrect, it is only my opinion taken from my own state.

Q. If you have had anything at all to do with the conditions in Arkansas, don't you know that the larger part of the interstate L. C. L. freight is shipped to a few jebbing points from which it is shipped to final destination?

A. I wouldn't think the L. C. L. was, because as a rule, jobbing

points can afford to buy in carloads.

My attention is called by the auditor in the Cotton Belt road, to the division in the haul shown by the statistics in this case on that line; it is 307 miles trans-state less than carloads, 132 interstate, and the state is 36, less than 1/8th of the trans-state, and

about 1/4th of the interstate. Under your view as to the effect of passing terminal divisions upon the expense of handling 3087 these two classes of L. C. L. freights, wouldn't there be quite a large scope for a difference in the revenue that should be derived—I mean for the service rendered and revenue derived.

A. There might be a difference.

Q. Wouldn't that indicate quite a difference?

A. It would be 132 against 36.

Q. And it would be 36 against 307, which is 64% of the ton mileage on all business.

A. That is trans-state business?

Q. Yes. A. Trans-state business should carry a much less rate because each

mile is bearing its unit of the terminal cost.

Q. You described in your testimony in chief the manner in which cotton is picked up; you say it is picked up and carried to division points and local trains set the empties for grain also, speaking of that; you have no knowledge of how that sort of thing is handled in Arkansas, and on these lines involved in this controversy?

A. No, sir, it is general experience.

Q. Do you know how much cotton is handled by the Iron Mountain Railroad and Cotton Belt Railroad, respectively, from October to January of each year?

A. I haven't the least idea.

- Q. You know it is a very large tonnage, don't you; you have stated that you had a general knowledge of the con-3088 ditions?
- A. I know they handle considerable cotton. I understand there was 50,000 bales of cotton compressed at Fort Smith, and I presume the Missouri Pacific gets their fair share of that cotton.

Q. Would one local train a day be able to handle the volume of

that traffic moving in the way you described?

A. Yes, sir. Q. One local train a day would do it?

A. I think the outbound local setting the empties, and inbound picking the loads up and bringing them in, I think she could possibly handle it; you might have to put on an extra train for that service; I don't know the volume of business over there; I have known times where pick-ups had to go out and relieve division points time and again.

Q. What are "pick-ups"?

A. Trains that run out from terminals and pick up loads and carry to the next terminal.

Q. Is that kind of train used a good deal for handling that kind

of freight?

A. They are not run every day, no, sir; sometimes a month goes by without a pick-up train, and sometimes they run a pick-up every other day.

Q. What is that condition that causes that?

A. The heavy movement of grain or any other commodity; solid trains come out and pick up live stock and come in with them; I have known as high as six pick-ups to go out and pick up cotton.

Q. Because there was more than the regular schedule train could

handle on that particular day?

A. Yes, sir; perhaps on that particular day the market was going up, and they will dump in a load of cotton at that time, or for different reasons.

Q. You have said you didn't know the local conditions in the

state?

A. No, sir.

Q. How many bales of cotton can a local freight train haul, as they are equipped in Arkansas?

A. Give me the rating of your engine and the division, and I can probably answer your question.

Q. You haven't the information yourself? A. No, sir.

Q. I am told that 800 gross tons would be an average rating of engines?

A. In how many cars? I can tell the rating given in engine

rating books.

Is the rate of power of the engine dependent upon the num-

ber of cars it has to move?

A. At times it is; an engine might handle eight hundred tons weight of loaded cars, and could not handle eight hundred tons of empty cars; the draw bar pull would be excessive.

You are acquainted with the kind of cars that cotton

3090 is usually hauled in?

A. It is handled in any kind of car, just so it is a good

car; it might be a furniture car, or a common box car.

Q. Your general information is such that you would have some knowledge, I suppose, of the character of cars usually used in that traffic?

A. Yes, sir,

Q. Just assume such cars as you have been accustomed to?

A. I would say that a train could handle at least forty cars, and probably more; figuring 20 bales to the car, that would make 800 bales; it could probably handle more than that, picking up and everything; an engine of that rating, the cars weighing 161/2 tons,

figuring 20 bales of cotton to the car, could probably drag in sixty cars; I don't know how many cars they run in Arkansas on their track; I would like to know that before I answer that question; and that would make it vary between 800 and 1200 bales; sixty cars would be a very heavy train I imagine.

Q. What would a train of sixty cars weigh, as you described?

A. It would weigh over that; my first figure was nearer right; I figured the car and its contents weighing 35 tons, the first time, and forty cars would be 1400 tons.

Q. Is that over the capacity of 800?

A. No, sir; those must be light engines; our engines come 3091 in on our divisions with thirty and forty and fifty cars.

Q. I am asking of the capacity of an 800-ton engine; 1

mean the weight of the cars and contents?

A. I understand that; exclusive of the caboose, that would figure a fraction over 23 cars, and 20 bales to the car would be 460 bales; I imagine that would be a very light train.

Q. Those trains are rated lighter because they have to make a

good many stops, aren't they?

A. On account of her pick-ups and stops, yes, sir. I understand that a local train between stations makes better time than a fast train.

Q. You say trans-state trains are seldom run; you are not undertaking to speak for the practice on the roads that are parties to this litigation?

A. No, sir, speaking from my experience and the evidence that I have understood has gone in in this case, that is the only evidence

I have got for the Missouri Pacific.

Q. If the capacity of a local train is 460 bales, as you figured out in your last answer, how many bales would it move in the course of a month, 26 working days?

A. 11,960.

Q. That would be about 33 or 34 or 35 thousand bales for the season' that I called your attention to awhile ago?

A. The season extends for practically three months and a half,

41,860 bales.

3092 Q. Do you know how many bales were received in Ft. Smith annually?

A. I understood 50,000.

Q. Do you know how many in Little Rock?

A. I haven't the least idea.

Q. You have already testified you had no knowledge of Little Rock terminals; you don't know how they handle Red Ball trains and Green Ball trains?

A. Nothing except the rules.

Q. You have no knowledge of the arrangement of the tracks there, the sidings?

A. None whatever. Q. You have already testified that you only spent a day or a day and a half there, and you didn't go to the yards?

A. No, sir.

Q. You had no opportunity of seeing what conditions at the yards were?

A. I did not.

Q. I want to call your attention to some statements which you made in that connection, when you made the statement that a Red Ball train could go into Little Rock with fifty or sixty tons of its tonnage for Texas, and the rest was divided up to go somewhere else, with the result that other cars would be put into that train. What do you base such a statement as that on, with regard to that class of traffic, without knowledge of the conditions at Little Rock?

A. From these rules right here.

3093 Q. You say even if the trans-state trains were run right through, it would have to stand upon the main line for twenty or thirty minutes at each division?

A. It would require the main line to be left open at least ten or

twenty or thirty minutes before its arrival.

Q. Of course, whenever a train has to be let past, it is necessary for a passage to be left open; you know nothing about the length

of time required; it is a mere estimate of yours?

A. No, sir, I know that no train can get through a terminal where she has got to get her boxes examined, under twenty or thirty

minutes, with the switching of her engine and caboose.

Q. The point I want to call your attention to, the manner in which that inspection is made depends upon the arrangement of the classification terminals through which these trains are carried, doesn't it?

A. To a certain extent it does.

Q. And you could not determine, or could not undertake to say with any degree of accuracy, could you, as to what the practice would be at a given place and given terminal, without knowing something about the arrangement of the yards?

A. I wouldn't know that positively, but I would to a more or less extent; I have taken this here (book governing movement of red ball and green ball trains) and found that at some of the

terminals, I find a train going into De Soto is delayed thirty 3094 minutes; a train going into Piedmont is delayed thirty minutes; a train coming into Knobel is delayed thirty minutes; into Wynne, it is delayed there thirty minutes, and it is natural to presume those are conditions that exist elsewhere.

Q. You are reading that from the book of instructions?

A. Yes, sir, I find that Red Ball trains passing from Texarkana to St. Louis, passing through Little Rock at 2:50 in the morning, are delayed there until 3:45, or 55 minutes it is delayed there, under its own schedule; at Hoxie, it is delayed thirty minutes; Piedmont 30 minutes; De Soto 30 minutes.

Q. Does that involve an obstruction of the main track at those

places for that length of time?

A. I said main or passing track; I think you will find that in my testimony; if a train is going right through, the better policy is to stand it right on the main track while the change is made; it may be put in the passing track; there may be a block of passing track.

Q. Those places that you enumerated are division terminals are they not?

A. Yes, sir. Q. And are you aware that each of them has receiving tracks, and that the stopping of these does not affect the passing tracks at all?

A. I am not aware of that fact.

Q. That is a fact, I am told; now, that would provide a 3095 convenient method of handling those trains, without dis-turbing the main line track?

A. Yes, sir, and it would incur a very great expense in providing a receiving track for these trains to pass on, the building and main-

Q. Wouldn't these receiving tracks accommodate other trains besides trains carrying trans-state traffic,-state and interstate

trains?

- A. I don't understand that state traffic passes through in trains of that kind, but I understand that state trains are taken in and broken up and made up again at the terminal, and therefore, a receiving track would not be used for that purpose.
 - Q. What is the purpose of a receiving track?
 A. To hold a train on until it is broken up.
 Q. Couldn't it be used for any other purpose?
 - A. Yes, they could store cars on it if they wanted to.

Q. It could be utilized in any way?

A. Yes, sir, but they would have to clean it out every time a trans-state train came along, if they were running them.

Q. You made the statement that the local train when it gets into the station has already done the switching?

A. If it has followed its instructions.

Q. That the cars are all made up in order, and when the switching engine in a yard gets hold of the local, all it has to do is set out the cars.

A. I don't think that there is; these are strictly Red Ball 3096 rules I am going by; if I had the general rules, the trans-

portation rules, I could probably find that for you.

Q. Just a moment ago, in speaking about these receiving tracks, I understand you to state that the trans-state trains were not broken up like the local trains were, and for that reason the receiving tracks were provided for use of trans-state trains, because it would not be useful for other trains?

A. I did not say it would not be useful for other trains; I stated it would incur extra expense, if the receiving track was built,

Q. What I want to call your attention to is this. What is the occasion of breaking up these local trains if the switching has already been done before they come into the station; what occasion would there be for breaking them up?

A. Probably six were to go south, and six to go east, depending on the location of the terminal, and some were for the house track. and some were for private industries; they certainly are not going to

let the train stay together.

Q. Then you must be mistaken in saving that the switching has been done when the train comes into the station?

A. I mean just in line with the Red Ball switching, as it has all been done, that they must carry them in station order, all house track cars must be together; all south bound and all 3097 east bound, if they have a south and east branch there, and

all private industry cars must be together.

Q. What you should have said was, that when the local train comes into the station, it has already done its switching; then you say further, its cars are all made up in order, and when the switching engine in the yard gets hold of the local, all it has to do is to get the cars out?

A. That is it exactly.

Q. What you mean is that the cars are set in station order?
A. Yes, sir, the same as Red Ball trains.
Q. The Red Ball train being largely trans-state train, will come on the track at the terminal with the cars arranged in that order that the minimum amount of service will be required-I mean the condition the train is in will entail only the minimum amount of service that would be necessary to make the changes that are required?

A. That is true, if the train comes in according to rules.

Q. What changes that are necessary to be made in Red Ball trains would be less than in local trains?

A. You mean train for train? The work, car for car, would be the same, but as to train for train, work on the Red Ball would be considerably less than on local trains.

3098 Q. I mean train for train, and also with reference to ton-

nage they carry?

A. That would be train for train; that would be less on them. because all local cars would have to be handled and all of the trans-

state cars, if it was a trans-state train, would not have to be. Q. Now, in that connection then, I call your attention to a statement you made, in which you must be mistaken; you say that a through train going into a town like Little Rock,—that means I suppose on the Iron Mountain Railroad—and the local train going in with the through train would have three times as much work to do as the local train?

A. That is a stenographic error, I have not made a statement of

that kind.

Q. You didn't intend to make that statement?

A. No, sir, not that there would be three times as much work to do on a local train.

JUDGE HILL: Read that please.

Mr. Moore: "Why, the difference is simply this; that the local train when it comes in it has already done its switching; its cars are all made up in order, and when the switching engine in the yard gets hold of a local, all it has to do is to cut the cars out. They are already in order-the red ball in one place, the green ball and

other freight all broken up. That is the requirement that the local train shall bring its cars in in that way; while a 3099

through car comes in in the condition as it leaves the previous point. It is generally made up at the previous divisions or terminal point—and as near that condition as possible, but the services are virtually the same. They have the distributing of these cars around the different tracks, set them out and fill them to make a new train; set them away for the next morning; take them around to the different industry tracks.

"I should say that a through train going into a town like Little Rock, setting out its entire train, and a local train going into a town of that size, the through train would have three times as much work on it as a local train would, because more cars would be de-

stined to Little Rock and more to be delivered."

A. That is a different proposition; you said a train going through: the balance of the answer shows something different; it indicates there are more cars destined to Little Rock, on that train, than there was on the local train; naturally, the trans-state train or train moving in more cars for Little Rock, would necessitate more work at Little Rock: I answered right upon that; really, car for car, it would be the same.

Q. The local trains will carry more cars that are destined to Little Rock than the other, and for that reason there would be more to do in breaking up that train than there would in the

through train?

A. I think that would be true; this is a different proposi-3100 tion; your question was that a trans-state train coming in would have three times as much work as the local; my answer is that a through train, I should say that a through train coming into a town like Little Rock, setting out its entire train, and a local train coming into a town of this size, the through train would have three times as much work on it as a local train would; that is a different proposition; that is correct, but the way you gave it to me at first, it was a stenographic error if it read that way.

Mr. HILL:

Q. You find it doesn't read that way?

A. No, sir, not as I understood from the Judge's question; that is, setting out its whole train in there, is the essence of the entire statement.

Mr. MOORE:

Q. What is the rule you have in mind in making that statement, that would govern the local train?

A. I mean if the Red Ball train comes in entire.

Q. I am speaking about the local; what is the rule for a local train that you have in mind in making that statement?

A. I mean that a local will have part of its cars which are through cars, going on to some other point, and all that will be necessary is

to set the cars on another track, and that only a small portion 3101 of these cars on the local would be destined Little Rock, whereas in the Red Ball train, its entire tonnage would be for Little Rock.

Q. Not if it was a trans-state train?

A. Your question is, if it sets out its entire train; my answer was if it set out its entire train,—that is the whole thing in the answer.

Q. Let me call your attention now—I must confess I don't see the distinction you draw there; what you say is this, I should say, that the through train coming to a town like Little Rock, setting out its entire train, and a local train coming into a town of that size, the through train would have three times as much work on it as the local train because more cars would be destined to Little Rock and more be delivered there. Do you intend to distinguish between the through train and the local train in your reference to them there? Do you mean to indicate that all the cars in the through train are destined to Little Rock, and in the local train, all the cars are not destined to Little Rock?

A. Exactly.

Q. You didn't make that clear in your answer.

A. When I say "setting out its entire train" that means that its whole train is destined to Little Rock.

Q. You are speaking of a through train now?

A. Yes, sir.

Q. And immediately following, you spoke of the local

3102 train and you didn't qualify it.

A. Yes, sir, because the local train seldom has all its tonnage for the terminal it is going to; if I hadn't qualified the through train, it would not have had its entire tonnage for Little Rock, but I did qualify it.

Q. Have you ever known of a through train going to a station like Little Rock, with all its tonnage destined to that station?

A. Yes, sir; you put a question to me yesterday, if there was sufficient cars in a yard, you mentioned a yard somewhere, to make a solid train for Little Rock, would they put Texas cars in that train. and my answer was they would not, predicated upon the same question as my answer is here.

Q. I understand that these Red Ball trains are made of a large number of cars; let me ask you what Red Ball train consisting of fifty or sixty cars all destined to Little Rock, coming in either direction, from the Ft. Smith division or from St. Louis, wouldn't it be rather difficult to imagine a train of that many cars coming into a station like Little Rock with cars all destined to that station?

A. I wouldn't imagine they would handle fifty cars; I see their

average is 33 cars.

Q. And perhaps there are twenty or fifty; I think the testimony in this case is some of them handle sixty cars?

A. Possibly that is true, as it was with cotton; they handle from 23 to sixty.

Q. It would be a very remarkable condition for such a train as that to come into a station with its cars all destined to that station?

A. I would imagine it would.

Q. Where have you seen such a thing as that?

A. I saw a solid train come into Oklahoma City one time.

Q. All the cars destined to Oklahoma City?

A. Yes, sir.

Q. How many cars were there?

A. 30, 31 or 32; is was broken up there, unloaded and shipped out piece by piece; it was a train load of machinery.

Q. Is that a common occurrence out there?

A. No. sir. I don't think it is a common occurrence in any of our western states. I could tell you a condition that could easily bring that about; take a blockade, which very often exists on a railroad; take 1907, we had plenty of them where terminals would be absolutely blocked; say Guthrie was blocked, there was a blockade, and a Red Ball train would come in there; they might run a solid train clear down to Oklahoma City. Arkansas City, say, was blocked, and it would be thoroughly blocked up; they might make up a solid train and get those cars out of there; they might make up a solid train and send those cars to Oklahoma City.

3104 Q. Why do you attribute it to 1907?

A. Because there was more blockades then?

Q. Why was that?

A. Because of the panic, on account of the increase in the business; it was considered the banner year of railroads in our country.

Q. What time do those blockades accur? A. They were blocked up as late as November; I was in Mexico at that time; I know our freight was blockaded in the United States as late as November; after I came home, for two or three months, I never thought of blockades or anything else; I was working too hard and had my mind on other things.

Q. Was the condition exceptional that fall?

A. It was considered so; I have seen solid carloads of merchandise sit on side tracks, which railroads would not do under ordinary circumstances.

Q. That was a very abnormal condition?

A. Yes, sir, I said it was. I will say it was as abnormal as you

want me to.

Q. Referring now to the question as to the relation between state and interstate traffic, and assuming that the rates from Memphis to points in Arkansas are based on Arkansas state rates, and that rates from St. Louis are based on the fixed differential over the rate from Memphis, and say that the rates from Pittsburg are based upon a fixed differential over the rate from St. Louis, I want to ask

3105 you what you would say, if you wouldn't say that the state rate did affect the interstate rates to the extent that these several rates are based in the manner which I have mentioned?

A. I am sorry I cannot agree with you Judge, but I find that the Memphis-Little Rock rate is 86% of the first class rate; the St. Louis-Little Rock rate is 85%, that is the second class; the third class, Memphis-Little Rock rate is 64; the St. Louis rate is 65; the fourth class Memphis-Little Rock rate is 51.4; the St. Louis is 49; the fifth class Memphis-Little Rock rate is 38.6, St. Louis-Little Rock, 37.

Class "A" is 41.4 against 39. Class "B" 31.4 against 32.

Class "C" 25.7 against 27. Class "D" 21.4 against 23. Class "E" 17 against 18.

Now, those certainly show that they are not applied one with relation to the other; there is only about 3.4% variation in the scale.

Q. Referring to the Little Rock rates which you have just recited out, and applying it to the State of Arkansas generally, I ask you if the rates from Memphis into that state are the Commission rates plus the bridge arbitrary, and then the rates from St. Louis and Pittsburg and these other places I mentioned are applied in the way I

have stated, wouldn't that indicate there was a relation be-

3106 tween state and interstate rates?

A. If there was a certain arbitrary added to the state rate to make the St. Louis rate, and a certain arbitrary added to the state rate to make the Pittsburg rate, I would say that there was a relation between them, but the percentages in existence from the actual rates, show that there is a difference of only 3.4%.

I have thought of a further proposition in answer to the last question; the differentials that would be added to your state rate as from class to class, would necessarily be the same percentages as between class to class as the rates were; in order to hold the relationship.

Q. Assuming that the differentials are fixed?

A. Unless they are fixed with some relation to classes as the rates are built—

Q. They are fixed.

A. Then that condition in the state would exist.

3107 Redirect examination.

By Mr. HILL:

Q. Mr. Moore has put to you some rates on lumber, 22 cents from Louisiana to Little Rock and 14 cents from points in Arkansas to Little Rock. I will ask you if that necessarily would mean that the lumber could not move from Louisiana points into Little Rock on

a 22 cent rate, and if not, why?

A. I wouldn't think it would prevent the movement, Judge. It has been my experience with the manufacture of lumber in the Western part of Arkansas, and the Eastern part of Oklahoma, those being the two fields I am familiar with, and the Southern part of Oklahoma, it costs more per thousand feet to manufacture that lumber—at least that is the testimony of the mill men, their figure being approximately \$3. and \$3.50 per thousand to manufacture that lumber; and it was further testified, that lumber was sold F.O.B. destination, and that a difference in the rate was absorbed by the lumber mills.

Q. There would be another factor entering into that; suppose a man could buy stumpage in Louisiana much cheaper than he could

in Arkansas?

A. That would be included in that \$3.50, I suppose; I don't know anything about the price of logs, etc.

Q. In other words, the lumber dealer, if he has sufficient

3108 margin of profit, can absorb the difference in rate?

A. The lumber mill man absorbs it; it was testified there before our Commission, by all the lumber dealers from our state—I mean a large part of them; I suppose there was forty present, and they testified that they were quoted the same price on Oklahoma lumber as they were on Louisiana or Texas lumber. There seems to be a margin of 50 cents or a dollar a thousand, and sometimes it would vary one way and sometimes another, it appearing that some of them wouldn't get figures in line quite quick enough, but freight rates seem to make no difference in the price of lumber, and I should judge the same condition exists in Arkansas.

Q. Mr. Moore detected a mistake you had made in your calculations in illustrating L. C. L. interstate and intrastate; you have,

haven't you corrected that mistake?

A. I called the calculation this morning, but I would like to correct it; now, I say that the figure on interstate traffic would be \$1.90 per ton. The figure on state traffic would be \$3.84 per ton, a difference of \$1.94 per ton, or an excess of 4 cents per ton over double the revenue received from the interstate traffic.

Q. Does that correction of your calculation change the proposition

that you were illustrating with it?

A. It don't change the proposition in the least, except that I made the statement that there was a dollar and four cents more revenue to the railroad companies on state traffic than double what they received on interstate traffic, whereas it should have been four cents, but they receive, not only the same \$1.90 from state traffic as they receive from interstate traffic, but they receive another \$1.90, and then four cents additional, to take care of one additional terminal and other slight expenses chargeable to state traffic.

Q. A good many times, in his questions to you, Mr. Moore put assumptions to you on the theory that all interstate business had one handling, except trans-state and it had no handling in the state, and that all intra-state business had two handlings; is that theory

true in fact?

A. I don't think it is judge; it has not been true in freight that I came in contact with, but as I explained thoroughly in my direct-examination, and I think in answer to Judge Moore's questions, this morning, that traffic from St. Louis destined to stations around Little Rock, would be handled to Little Rock, possibly they are unloaded, reloaded into peddler cars, and then handled to destination.

Q. I call your further attention to the fact that both Memphis and Fort Smith have an L. C. L. traffic that goes into the exhibits in this case as interstate business, as well as carload traffic; I presume you are sufficiently familiar with the local conditions to know the

kind of handling that traffic would get?

A. It would get two within the state, considering that for the purpose of this case Memphis is considered within Arkansas.

Q. And the same is true of Ft. Smith?

A. Fort Smith is in Arkansas.

Q. It is an interstate point on account of the freight having to go out of the state?

A. Yes, sir and come back into the state.

Q. And so treated in the exhibits in this case?

A. Yes, sir, Memphis is an interstate point but for the purposes of this case, it is treated as an Arkansas point; all that traffic would have at least two handlings.

Q. You have already, in your direct examination, given the various handlings of grain and cotton and other interstate com-

modities?

A. I have.

Q. Mr. Moore referred to the Arkansas Commission making a 13 cent rate on sugar applicable from Helena to Texarkana, which reduced the New Orleans to Texarkana rate from something like 27 or 28 cents, I think it was, down to 23. I will ask you if those are good illustrations of the cost of service?

A. No, I didn't see where the cost of service would figure in this at

all.

Q. It was a commercial condition that the railroad Commission—upon which the Commission forced a lower rate to Texarkana on sugar?

A. That is what it occurred to me to be; not knowing of any movement from Helena to Texarkana other than interstate sugar, and it would appear to me to be made for the purpose in some way of reducing the interstate rates.

Q. I suppose your Commission where it finds there is some unjust rate, would put in some rate that would bring about what they

deemed a reasonabler ate?

A. We only had one time that the Commission did that, as I

testified yesterday.

Q. I think this is the only occasion it is shown that the Arkansas Commission did that; I think they ought to have done it oftener than they did. Mr. Moore had you make several comparisons of the rate per ton per mile on grain, stone, coal and cotton, and after getting the figures, he carried you into a rather extended comparison between cotton and stone; he didn't carry the comparison into grain and stone; does that run?

A. The rates on stone and grain in our state, stone is just little

lower than grain.

Q. How does the cost of service on stone and grain compare?
A. I imagine that there is a much heavier cost on grain than on stone.

Q. How about the casualty risk on grain?

A. That is an item I am figuring on; the handling of grain, starting with its first loading is more expensive; the railroads must furnish what is known as grain doors, and must see that the cars are properly prepared for the handling of grain. They must pick good cars that have no leaks in their roof, and the cars must be

swept and properly prepared for grain handling, and the grain then moves into the milling point—at least a large part of it does, where it is unloaded and the car sent back.

or held or used for other purposes, and when the milled product is ready to be used, another car is sent forward, loaded again, the same

care being used to pick a good car.

Stone will move in a flat car, cattle car, any car they can get hold of, with sufficient foundation to hold the weight, and carried to its destination. If a car of grain should be wrecked, there would be a very heavy loss; if a car of stone should be wrecked, the loss would be the cost of re-loading.

Q. Is there not very large claims against grain shipments, not on account of wrecks, but on account of leakage and such things?

A. Yes, sir, that is a very heavy element of claim. Q. These are voluntary rates you are referring to?

A. They were voluntary rates, yes, sir.

Q. Interstate or state?

A. Both state and interstate; the grain, of course, is interstate.

Q. What is your opinion of the representation of the cost of service as reflected in those two respective rates?

A. There is no representation of the cost of service between the

two rates.

Q. Here is what I wanted Mr. Moore to call your attention to in Mr. Becker's testimony, that he did not see proper to do (Page 475, vol. 2). 3113

"Q. There are you know, published exceptions in Texas

to the Western classification?

A. Yes, sir.

Q. Why is it that Texas has worked out so many exceptions?

A. They have a commission who makes its own ratings and exceptions; what governs them I don't know.

Q. I refer to the interstate tariff where there are exceptions?

A. Those are in the nature of commodity ratings?

Q. They amount to exceptions, don't they?

A. Yes, sir; and you ask what makes that necessary? Q. Yes.

A. I presume commercial and competitive conditions.

Q. Those Texas exceptions to the western classification apply on the traffic moving from St. Louis to Texas, do they not?

Q. All the trans-state traffic that moves through Arkansas or St. Louis to Texas, would be governed by the exceptions to the western classification, made to fit Texas conditions, wouldn't it?

A. That would be my understanding.

Q. Does your committee give consideration to commercial and

competitive conditions also in making the classifications?

A. More or less, not to the same extent, of course, "that governs in commodity rating. You know our classification covers over quite an extensive territory, and there might be local conditions that would make it necessary to except to that classification."

I will ask you if your experience agrees with that of Mr. Becker on that line? Your observation of the classification?

A. Yes, sir, there are numerous exceptions, and they are brought

about, I wouldn't say entirely that commercial conditions bring them about; the railroads are often desirous of making exceptions.

Q. I think the testimony would indicate that the Western classi-

fication committee even considers competitive conditions?

A. It does, there is no doubt about that.

Q. You and Mr. Moore have discussed at great length the transstate trains-supposedly trans-state trains-as a matter of fact, I believe you have explained that there were very few of these. I want to know what difference there would be in handling or switching one trans-state car say from one line of the Iron Moun tain to another, at the terminals, and picking up and placing a car from a local, at an industry track; to illustrate, suppose, they have got a trans-state car coming down the White River Branch that would strike the main line at Diaz and be switched on to some other train to be carried to New Orleans or Texas as the case might be, and at Newport, right below there, there would be a car picked

up from an industry track; what would be the difference in the handling of those two cars so far as the switching 3115

movement is concerned?

A. There would be a little difference; the engine switching from the White River train would probably handle more than one car, and I imagine that the service would be performed about as fol-The White River train would come in, and the engine would take the cars off that were going to be put in other trains, or destined through going in other directions; those cars would be set out first on one track, to let that car go on if it was going on; otherwise the train would be broken up and the cars placed on the particular tracks relative to the other trains; if it was a classification yard, then when it came in, to make up this other train, they would go and pick this car up and switch it around until it got in its proper place.

Now, picking up the car from the industry track, the difference is that the engine would have to go to the industry track; it might, in that journey, pick up six, seven, eight or ten cars, and if the industry track was located in a reasonable distance, I should say less than a mile from the yard proper, the switch track the train is to be made up on, and there are six or seven cars taken out of that industry track, there would be very little difference in the expense? As soon as that came back in the yards, it would have to go through the same operation as the trans-state car would, and if they simply

picked up one car, they would have the expense of that switch engine going out there to that industry track and taking off one car, as compared with the work of the switch engine in taking the trans-state car off the White River Branch train, with six or seven other cars, and that pro rata part would be

its only expense.

Q. This morning Mr. Moore was asking you some questions about the carrying capacity of trains, and gave you an illustration of the rating of locomotives; I hand you a list showing the capacity of different classes of engines, used there on the Arkansas Division, and here is the capacity of different classes on the White River

Division. I wish you would look over those, I don't suppose you have had an opportunity to see them.

A. These seem to vary from 350 tons to 2400 tons per engine

on different divisions and different engines.

Q. Take a movement through from Hoxie to Texarkana, one of those bridge movements, where the cars go through on a bridge, show the ratings of the engines here, and what effect that would have on your train?

A. These districts read straight down, do they? Hoxie is first,

Little Rock second, and Pine Bluff third?
Q. Pine Bluff would be on a branch; Hoxie, Little Rock and then Texarkana would be on the main line?

A. Hoxie, Argenta, and Argenta to Texarkana, that would be the main line would it?

Q. Yes, Argenta is the yards across the river from Little Rock. A. If a Red Ball train came out of Hoxie or otherwise, if it has its full tonnage, it would have to set part of those cars out when it got to Argenta.

Q. Why?

A. Because it carries 1500 tons up to Argenta and from there south, it could only carry 1200, so it would have to set out 300 tons and if you figure the average cars at 33 1/3 tons-that is a little light, but it will make the figures even,-to handle three cars would be 100 tons; that would mean setting out six cars off the train.

Q. Take the White River right before you; you see one repre-

sents the haul north and the other south?

- A. Take a train starting out of Carthage, Mo., moving to Crane, any engine between 851 and 893 would carry 975 tons to Crane; between Crane and Cotton, it would reduce its tonnage 375 tons, and then from Cotter to Batesville, it would reduce its tonnage 800 tons. From Batesville, if it was going back in the back direction from Batesville to Cotter, it would carry 1200 tons, but going on south, the shipment has been raised from Cotter to Batesville to 800 tons; then from Batesville to Newport, the train would have to reduce 700 tons.
- Q. Then from Newport to Argenta, is that shown on that, or would that be on the other sheet?

A. Yes, sir.

Q. There wouldn't be very much bridge movement on transstate freight with that kind of capacity of the engine?

A. Not unless they started with an under-tonnage train; a very light train; an engine would be losing the value of its 3118 capacity if it was making a bridge movement.

Q. I am just using the expression of Mr. Doddridge which

was emphasized by Mr. McPherson?

A. I simply meant, going through that picking up or setting out,

it would lose its character.

Q. Mr. McPherson told us about a lot of grain going over that White River Division, passing over a bridge from Carthage to Diaz, and then I suppose it would go down the river line from Bald

Knob; what do you think of that kind of a bridge which it would be on?

A. There couldn't be any bridge service except from division to division, because the same engine would carry different tonnage on each division, and it would be necessary to set out and pick up all the time to keep that engine at its maximum capacity, and unless it was so kept, the railroad would lose money by running it.

Q. If they didn't get it up to its rating, it would be very poor

railroad operation?

A. They will get it to the rating if they have the rating to give it; an engine will not go out light unless it is a peculiar condition.

Q. They keep it at its rating by picking up and setting out, don't they?

A. Yes, sir.

Q. Whether it is a bridge or not, that is a pretty good railroad movement?

A. It is the only feasible practical movement in my opinion.

A man would be foolish to run an engine across a division with only 700 tons, if it would carry 1200 tons.

Q. It might be pretty good railroading, but it would knock the theory of trans-state trains?

A. The through trans-state trains, it would knock it entirely.

Q. Here is a statement that you made in your testimony, I don't know whether it is sufficiently explicit to carry out your meaning. Mr. Moore is assuming some facts to you: "Assuming those two facts, that it costs more and the rate was higher, which would represent the cost of service better, the revenue or the ton miles?"

Your answer was: "The revenue would nearer represent the figure that would represent the cost of service; wouldn't any figure represent the cost of service, but the revenue would be nearer than the ton miles would; that would be presuming they both moved the

same distance under the same conditions."

I wish you would explain that a little more?

A. I meant that if a shipment originating at Little Rock and moving to Gurdon—I see that is a point on the Iron Mountain in Arkansas; now, if there was a shipment of baskets and a shipment of bar iron, both moving from Little Rock to Gurdon, both weighing the same amount, I mean to say that the cost of that service could nearer be estimated by the revenue received, if the revenue was in the proper ratio.

3120 Q. It was not any assumption that the revenue was in

the proper ratio?

A. No, sir, I say if the revenue was in proper ratio, then it could be estimated by taking the ton miles. If the revenue was in the proper ratio to the liability and space consumed and all the factors which enter into the making of the rate, it would be a better factor in making the per cent.

Q. Suppose baskets were classified at less than wire rope was classified, how would the revenue the represent the cost of service?

A. It would be a very poor representation of the cost of service,

because a railroad could well afford to handle four or five hundred pounds of wire rope where they could afford to handle 100 pounds

of baskets.

Q. Mr. Moore questioned you somewhat about this Cotton Belt exhibit, showing their increased earnings in January, 1909, and you stated that on the face of it, it did not necessarily mean an increase in the rates, as I remember your testimony.

A. You misunderstood me; I said that upon the figures given me by Judge Moore, that the ton miles had been increased, that it

meant nothing upon its face.

Q. Have you looked into that any further, and found out whether those figures compared with the six months' period involved in this case, mean anything?

A. I have.

Q. Give us the result? 3121 A. I find that in the six months' period in the Cotton Belt exhibit, and I don't remember the dates,-that the total ton miles was 8,512,807, producing a revenue of \$163,064.45; I have divided both of these factors by six, as I understand this is a six months' period, and it gives me a figure of 1,418,968 ton miles, with a revenue of \$28,844. plus. In the month that is spoken of, there was 775,493 ton miles, with a revenue of \$30,916.20. In other words, for 1/6th of the six months, they handled nearly 700 tons more for practically \$2,000 less.

Q. What would that naturally indicate?

A. An increase in the rates.

Q. Probably some prohibition on the high rates moving the stuff

A. It decreased the traffic, there is no doubt about that, and increased the gross revenue, and I should judge from it, it decreased the movement of low commodities; not being able to go into the matter any more than I have, I should judge it would decrease the low commodities.

Q. You know Mr. B. M. Flippin of the Iron Mountain Railroad?

A. Very well.

Q. I want to read you from page 252, vol. 1, of his testimony in this case:

"Q. I stated that it is claimed by your side, that the rates of November 2nd, 1908, are about 42% higher than the Commission rates, but I will ask you if in readjusting the interstate rates, you raised them 42% higher than the pre-existing

rates?

A. I don't think the measure of difference in interstate rates was the same percentage, because of the fact that the adjustment relatively was already very much higher. The rates within the state of Arkansas, under the Commission's tariff, were inordinately low, and therefore, when we came to the point of advancing the interstate rates with relation to the state rates, we didn't have to observe the same comparison.

Q. About what percentage of increase did you put upon the in-

terstate rates?

A. It varied according to the commodity involved.

Q. Of course, it always does that, but I am speaking generally of about what would be the average increase?

A. I should say from ten to fifteen per cent."

Take that testimony in connection with an increase of nine and a fraction per cent in the interstate revenue shown in the January exhibit, and the 96% shown there as against the admitted increase of 42% in the state revenue, what conclusions would you naturally draw from it?

A. That they had increased the state rates more than the inter-

state.

Q. Very considerably too?

A. Yes, the figures show that. Q. In referring to this cotton movement, Mr. Watson 3123 and Mr. Moore gave you some figures yesterday on the rate per ton per mile on the cotton movement; did that take into consideration the amount the railroad paid to the cotton compresses?

A. I didn't understand that it did; I don't know whether that was deducted first or not. I don't presume it was, because he

quoted me rates.

Q. What is the custom about who pays the compress charges—

the railroad or the shipper?

A. The railroad; it is always taken at the railroad's option of

compressing.

Q. Take the illustration of oranges, and other citrus fruits, from Los Angeles to Little Rock and New York. On cross-examination you were cross-examined at great length on that. I brought out that the rate from Los Angeles to Little Rock was the same as the rate from Los Angeles to New York. I would like for you to estimate if you could, the difference per ton per mile on that car that would go from Los Angeles to Little Rock and one that would go from Los Angeles through Little Rock to New York?

A. You will have to pass that question for the present until I can

get the distances.

Q. Coming back to cotton for a moment, I believe you stated that cotton was moved from compress points and other 3124 points in the nearby territory on the same rate; is that true?

A. Yes, sir, as a general proposition, it is true.

Q. Take as an illustration of that, a matter that I happen to know of that has been recently developed in the case. The rate from Paris, Arkansas, on the Arkansas Central, which is 42 miles from Fort Smith, is the same as from Ft. Smith, and that cotton is shipped in there, compressed there and shipped out on the same rate as another bale that was raised near Ft. Smith and was carried in there and compressed and shipped out. I will ask you if that is a fairly illustrative example of the cotton movement from small towns into the compress points?

I have known of distances being twice that though. Q. Then that movement from Paris to Fort Smith would repre-

sent the local haul?

A. Yes, sir.

Q. And there would be two handlings?

Q. Before it took up with the other bale that had no other handling, until they both started out of the compress?

A. That is true,

Q. And it would be the same rate?

A. Yes, sir.

Q. There would be some little difference in the cost of service, I should infer?

3125 A. I should imagine there would be considerable difference in the cost of service, because that would be handled on that very expensive local train and handled as L. C. L. freight, loaded and unloaded by the railroad company.

Q. You stated to Mr. Moore yesterday that you didn't know the exact divisions made on this cotton, citrous fruits and other things, but do you know that some division is made with the other lines?

A. From my general knowledge of rates, knowing various through

rates, I know there is a basis of division.

Q. What are the usual bases of division?
A. Either an arbitrary which one line demands; a constructive mileage basis, which is allowed one line and that generally is where a line performs a very short haul, or a mileage pro rate. Those are the three general divisions used.

Q. Where these different ones are used, it would affect the amount of revenue that is being credited to the State, and this trans-state and

other interstate business, wouldn't it?

A. Naturally.

Q. I want to submit to you an affidavit made by Mr. C. K. Vorhees, which was filed in this suit on motion to dissolve injunction, before the Circuit Court of the United States at Little Rock, in the spring of 1909. I presume you know Mr. Vorhees?

A. Very well, he is general freight agent of the St. Louis & San

Francisco Railroad.

Q. On page three, he states: 3126

"Affiant states that the representatives of the several lines discussed and considered the relations which should exist between the several class rates, and after much study and comparison with the rates in other states and with the class rates applied on interstate traffic in various portions of the territory west of the Mississippi River and other elements affecting the fixing of class rates, it was decided to recommend that the various classes should bear the following relation each to the other:

1st	2nd	3rd	4th	5th	A	В	C	D	E Classes.
100	831	66%	50	40	45	30	30	25	20 Percentages."

Are you familiar with that which I presume is put forward by Mr. Vorhees as the ideal relation of one class to another?

A. That scale looks very much to me like what is known as the Minnesota scale, and which has stood the test of the Supreme Court of that State; I would not be absolutely positive, but it appears to me as very close to the Minnesota scale.

Q. That is presumably considered by those who made it, the ideal

scale?

A. It is so considered at present, but I am sorry to say it is not in

use anywhere except up there, that I know of.

3127 Q. From page 4 of Mr. Vorhee's affidavit, I want to take what he gives as the rates that were applicable; these are all interstate rates applicable at the time of the injunction in this case; he first gives those from Memphis to Little Rock:

Then the rates from Memphis to Fort Smith, distance of 302 miles:

Then the rates from St. Louis to Little Rock, a distance of 345 miles was:

Now, with those before you, I will ask you if they illustrate the point that you were making in your cross-examination, that there was no proper relation between the classes in the interstate tariffs with which you could compare or establish a relation with the state tariffs?

A. They are. I had all those percentages figured out, but they seem to have disappeared; I read them into the record this merning; I read all the interstate rates in, and I had the state rates figured out as to the percentages of those. I believe forty miles is supposed to be

the average haul in Arkansas. Q. 42, I think it is?

A. I have taken 40 miles; now, I will call four columns, the first column will be the Memphis to Little Rock rate, the second column will be the Memphis to Ft. Smith rate, the third column will be the St. Louis to Little Rock rate, and the fourth column will be the Arkansas Standard Distance Tariff #3, for forty miles:

														M	L. R.	MF. 8.	St. LL. R.	ASDT. #3.
2nd				9		٠	9			 	 				86	85.3	85	90
3rd						۰			 		9	-			64	65.7	65	80
4th															51.4	48	49	66.6
5th															38.6	39.2	37	50
"A"			٠		9						 				41.4	41.1	39	53.3
"B"						٠				 					31.4	34.3	32	40
"C"		0					٠			 		,			25.7	29.4	27	30
"D"															21.4	27.4	23	26.6
"E"								٠		 				٠	17	22.5	18	23.3

Those are the percentages of first class rate in each class. Now, that shows that the relation of the interstate rates to the state rates for the average haul in Arkansas, is not relative at all.

Q. There is not one of those interstate rates where you could make

the relation so it would fit in with another?

A. No, sir.

Mr. MOORE:

3129 Q. Are those the rates in force now? A. No, sir, the ones in 1907, I understand.

Mr. HILL:

Q. Were those rates Mr. Vorhees has been testifying about, the interstate rates in force at the time of the injunction?

A. Yes, sir, these are the rates I took from that affidavit, and

40 miles distance rate in Arkansas.

Q. If anybody wants the job of figuring out which one of the interstate schedule of rates you would have to figure on, he would have a pretty difficult job?

A. I wouldn't like to have to take it up.

Q. Here is a scale of miles that Mr. Hamilton has gathered up, illustrating the proposition I asked you about, that you can use in answering the question I propounded awhile ago on orange ship-

ments to Little Rock and New York from Los Angeles.

A. This table appears to show that the distance from Los Angeles to Little Rock, via El Paso and Texarkana is 1815 miles, and the distance, Los Angeles to New York, via El Paso, Texarkana, St. Louis and New York, via Pennsylvania Lines, 3219 miles, the distance to Little Rock being 56 decimal per cent of the through distance, and if the same rate applied from Los Angeles to New York, it would mean that the revenue per ton per mile would be cut down in just those relations.

3130 Recross-examination.

By Mr. Moore:

Q. Why do you use forty miles as the average length of the haul in the table you have just prepared?

A. I understand about forty miles was the average length of the

haul in Arkansas.

Q. The figures furnished you in the affidavit of Mr. Vorhees were the voluntary rates put in by the railroads after the injunction was granted in this case?

A. No, sir, I understood they were in prior to that.

Q. You stated that the railroad companies paid the compress companies?

Λ. I said that was the general practice.
Q. For what service is that paid?

A. Compressing, marking and patching.
Q. Does it not also include on the lines in this litigation, the loading and unloading of cotton at compress points?

A. That I don't know. I don't understand that it covers loading and unloading; in our state, it includes, compressing, patching and handling in the way of putting new ties on it, making it in such

condition that it can be shipped.

Q. If it is true that ten cents a hundred is paid by the railroad company to the compress company for all services connected with cotton, including loading and unloading at compress points, that would cover the service which you have stated on this examination. was rendered by the railroads wouldn't it?

3131 A. It would partially cover the services.

Mr. HILL:

Q. Who pays that, the railroad or the compress?

A. The railroads.

Q. Pays it to the compress for the services?

A. Yes, sir.

Mr. MOORE:

Q. As I am informed, the railroad companies pay the compress 10 cents per hundred pounds, and that includes loading and un-Your attention was called a moment ago to the increase in revenues shown on the exhibits of the Cotton Belt Railroad in January, 1909. In order to know to what that is due, what brought that about, you would have to know something in regard to the shipping of commodities during the two periods?

A. To know the exact reason for that, yes.

Q. Suppose that in one period the tonnage was composed of lower grade commodities than it did in another, that would change the revenue derived from it?

A. It appears that it does.

Q. For that reason, it would be necessary to have a knowledge of the extent to which the character of commodities, whether low or high grade shifted, in order to know what caused the increase?

A. To perfectly analyze the statement, yes, sir; I stated that in

my answer.

Q. You were asked and you made a statement in regard to the effect of the engine capacity on the White River Branch, upon the handling of trans-state freights; I believe you stated

you knew the top geography of the country pretty well and of the railroad lines; is there any trans-state freights handled on the White River Branch of the Iron Mountain Railroad?

A. I understood Kansas City grain goes down that branch.

Q. Where does it connect? A. I don't know exactly; I only asked a few general questions, and did not go into detail.

Q. I think there is a connection there at Carthage, but you don't know the amount of trans-state tonnage that passes through there?

A. I do not.

Q. Do you know anything about the physical condition of that road as to the grades?

A. No, sir, nothing except the knowledge I get from the rating of the engine sheet; I get a pretty good knowledge from that.

Q. What do they indicate in regard to grades?

A. They vary considerably; some places they must have the minimum and some places the maximum; that indicates over there that the cost of service on one division would not be the cost of service on another division.

Mr. HILL:

Q. The revenue would be the same, wouldn't it?

A. Absolutely.

Q. I see in this statement of the capacity of the different classes of engines, taking the Hoxie district, numbers 438 to 457 and 501 to 545 are rated at 1500 tons?

A. I presume so, you have the paper; the variation appears

on the engine rating, regardless of the engine number.

Q. I notice certain other numbers are rated at different rates, say 1250 and so on; the object of that is to show the classification of these engines?

A. Yes, sir, show what every engine run on the road can pull over

a given division.

Q. That means 438 to 457 can pull 1500 tons in the Hoxie District?

A. Yes, sir, over the division stated.

Q. And then it means that engines 2302 to 2347 can pull 1250 over that district?

A. Yes, sir, it means they are poorer grade engines than the others.

Q. In other words, it is to show the grading of the different groups of engines?

A. Each engine specifically.

Q. Of each of the engines that is embraced within the numbers that is contained here in this tabulation?

A. Yes, sir, and supposed to contain every engine on the road.
Q. We have about 60 engines with a capacity of 1500 tons?

A. Yes, sir.

Q. Then we have forty or more of 1250 tons?

A. Yes, sir, some number of engines.

Q. Now, I see the Little Rock District runs the same way, as to the capacity of the engines, except that the capacities are 3134 different.

A. Yes, sir, it is lighter, I believe.

Q. But the purpose of this is to give information as to the capacity

of these engines on that route?

A. The purpose of that statement in that official time card is to advise employees as to what tonnage they must load on the engines in pulling them from division to division; I think there is something else that goes with that that is not there, and that is a statement of the penalties that are added for the number of cars; it would be a peculiar rating if it didn't carry that with it; they probably carry it with the book of rules; an engine couldn't carry 1500 tons of empty cars.

Q. Now, one of these sheets to which your attention was called, gives the capacity of engines on the main line, doesn't it?

A. Yes, sir, that is what I understand.

Q. And another one gives the capacity of engines on the White River Branch?

A. Yes, sir.

Q. Those engines on the White River Division are an entirely

different class of engines adapted to grade and conditions?

A. I don't know about that.

- Q. From your general knowledge, wouldn't you know about that?
- A. They might run another engine on that division; they 3135 would rate it accordingly when they got it over there: I suppose some engines are shown on different divisions.

Q. Look at the list and see if they are the same or different engines?

A. They seem to have different engines on different divisions.

Q. Isn't the class of traffic different on the White River Division from that on the main line, and on the Pine Bluff and Fort Smith

A. Generally speaking, I should say the traffic was heavier on the main line; I wouldn't imagine the character of traffic was any

different.

Q. I mean the density of the traffic?

A. I should imagine the main line traffic was more dense than on the branch line; if you would want my opinion, I would say the best engines are on the main line.

Q. You undertook to describe the switching process at Newport; have you any knowledge acquired from observation, as to the man-

ner of switching cars at Newport?

A. I have not. I described the general switching arrangements

for conditions as I described them.

Q. Referring to your statement in regard to making a comparison of rates between grain and stone, wouldn't the value of the comparison be entirely influenced by the amount of grain moving and the amount of stone?

A. There is not a balanced reciprocal movement of grain,

3136 and there is of stone.

Q. There is on grain on Arkansas lines? A. I was testifying as to the rates in Oklahoma.

Q. The question I asked you is whether there is not a reciprocal tonnage in very much larger volume on one than on the other, that would influence the comparsion?

A. It would have an effect upon it.

Q. The testimony in this case shows that those cars that haul grain south go back loaded with other tonnage in our state, on these lines involved, both of them.

A. We contend in our state that the empty movement is northbound; the stone movement is northbound, and the grain moves south.

Q. You have revised your figures on the revenue per ton on interstate traffic as shown on Exhibit 26?

A. I did that this morning.

Q. I see that you have still used the average haul of state L. C. L. freight for the purpose of ascertaining the average revenue per ton on interstate freight?

A. Yes, sir, the only thing I did was to revise the error I made

in carrying one figure.

Q. In other words, to ascertain the revenue per ton on interstate freight, you multiply the revenue per ton per mile by the average length of the haul of state instead of interstate?

A. Yes, sir, in order to show the revenue accruing to the railroad from the identical movement in the state, and the interstate over that

very piece of track.

3137 Q. And in doing that, you utterly disregard the difference produced by the difference in the long and short hauls, do

you not?

A. I do, because it doesn't figure in the proposition that I used; I was trying to show that the state freight did pay an extra premium on account of its short haul, and it was the very reason I used those figures to show that it is based on the same figures that the long haul is based on, and in addition to the same figure again, four cents additional.

Q. In comparing the terminal handlings of state and interstate L. C. L. freight, you attribute two terminal handlings to state

freight, and what number to interstate?

A. Some of it will have one, some will have three; I went into

that largely this morning.

Q. You base your assumption of three handlings upon the proposition that you described here this morning, it was loaded, came in, unloaded, and perhaps back-hauled?

A. Yes, sir, and the further condition of traffic from Fort Smith and Memphis which I did not take into consideration this morning.

Q. Do you know the relative volume of Ft. Smith traffic as between state and trans-state?

A. No, sir, I haven't the least idea.

Q. I believe you stated the action of the Arkansas Commission in rating sugar in the connection to which I called it to your attention on cross-examination, was a commercial condition 3138 forced by the Commission; wasn't it rather a rate making

condition forced by that commission?

A. It was a commercial rate condition; it was certainly a commercial condition, if they reduced the price of sugar.

Q. Why did you regard that as a commercial condition?

A. They reduced the price in sugar as they reduced the rate on it; it was a commercial condition governing the rates, was what I intended to convey.

Q. Isn't it a rate condition governing the commercial condi-

tion?

A. Either way you want to put it; what I want to draw is the idea that it was not a proposition of cost.

Q. What you meant was that the action of the commission had resulted by reducing the rate on sugar and consequently reducing the price of sugar?

A. I presume it did.

Redirect examination.

By Mr. HILL:

Q. In speaking of this Cotton Belt statement of January, 1909, Mr. Moore asked you about the fluctuations in the commodities; judging from your knowledge of the situation generally, would there be any fluctuation as between state and interstate that would be material in any one month?

3139 A. Not unless some unusual condition brought it about, I

don't think there would.

Q. You would look for information to the relative tonnage of each commodity in any given month of the year?

A. Relatively there might be a condition that something would

move heavier in one month than in another.

Q. That would be an exceptional condition?

A. Yes, sir, ordinarily a man would look, month in and month

out for the same.

Q. In using that word exceptional, Mr. Moore put a good many questions about exceptional rates, competitive rates and commercial conditions, which governed in making of rates, and things of that kind; I believe you and he fell into the habit of calling them exceptional rates; where does the volume of traffic move, is it under those kinds of rates?

A. It moves under those exceptional rates; I specified this morning it was exceptional but a general condition; I think the larger part of the traffic moves under commodity rates; they might be called exceptional rates; they are exceptions to the classifications

found necessary from commercial and other conditions.

Q. By speaking of them as exceptional, you don't mean by that,

it is a rate of insignificance?

A. Not by any means; there might have been some specified condition where I used the term exceptional.

Q. The commodity rate is usually regarded as an exceptional rate?

3140

A. Yes, sir.
Q. There are more movements under commodity rates than under the classes, I suppose?

A. Much larger.

Q. Speaking of those class rates, just one further idea about that; how do Arkansas class rates in Standard Distance Tariff compare with the voluntary class rates in force in Oklahoma?

A. They are much higher than the voluntary class rates in Okla-

homa which move the volume of the business.

Q You mean the jobbers' rates?

A. Yes, sir, we have two standards, jobbers' rates and common class rates; the jobbers' rates move a very large part of the traffic.

Mr. Koonce admitted on the stand that 85% moved under them, and I figured that 93% moved.

Q. We had in evidence two of those kinds of tariffs; we designated one that the very little movement is under, as the "Ruebens tariff"?

A. Yes, sir; that is emigrants' movables, fellows moving their household goods, or fellows bring- a bag of flour into town.

Cross-examination. 3141

By Mr. MOORE:

Q. Is there not a difference in the character of tonnage during the different seasons?

A. Year in and year out it would be practically the same unless

there was some exceptional condition.

Q. You say, there is no material difference or fluctuation in the character of tonage that is shoved in July as compared with January?

A. Oh, no-Q. I want to know if you say that-

A. -because in December cotton is moving and in July no cotton is moving. But I say, the conditions, between state and interstate, unless there is some exceptional condition that they are the same year in and year out. Month in and Month out I think the average volume of traffic is about the same. I think you will find it about the same, because when cotton is not moving something else is moving, such as grain.

Q. The question I ask you is, if it is a fact in your opinion, that there is no material fluctuation in the character of articles handled

and hauled in July or August, and January.

A. No, sir, it would show ignorance to make a statement of that kind.

Q. You would say, then, that there are fluctuations?
A. Between July and August?

Q. In order to understand and know why the revenue yieldthe yield of revenue had increased in January, we will say, over July or August, you will have to know what those fluctuations consisted of in tonnage, would you not?

A. In order to perfectly analyze the statement, as I told you before it would be necessary to know, but as a general proposition to look at a statement and you see that the factors, the tons, the miles, the rate or the revenue—those are the three factors—when you find those, you can tell whether a railroad has profited or whether it has lost.

Q. But you omit from your calculation of factors the character of

the tonnage?

A. Well, the character of the tonnage makes little difference. Q. Is it not the most important of all the elements that would be considered in determining what produced an increase of freight as

between July and January?

A. As to what produced it, yes if you have that factor alone and no reason behind it, but if you knew there had been a general advance in rates and had this other, the tonnage, the miles, the average distance, the revenue—you could very easily tell whether there had been an increase in favor of the railway or a decrease as against them, but to analyze it and say that the raise on grain had caused the increase or the lowering on stone had caused the decrease, it would be impossible for any man.

Q. Let us assume that you did not know anything at all about what the rates are at the two periods and that you do not know anything about what the character of the commodities carried

in the two periods is:

You are simply confronted with the fact that in January the revenue per ton per mile was larger than it was in July; someone asked you to account for that: would you not say, I cannot account for it unless I know the character of the tonnage and also the rates in those two periods?

A. No, sir, I would ask him to let me see the statement showing the

number of tons and average distance.

Q. You would not care anything about the kind of tons?

A. If I had the time to analyze it and wanted to get to the bottom of it I might, if I wanted to find the reason, but if I was simply trying to see if the roads had lost or made money, I would simply ask him to let me see the total tons handled and the average distance hauled.

Q. You are trying to find out what increased the revenue per ton per mile; that is the only proposition. You do not know anything about the condition except that there is an increase in January over July:

You do know that there is a large fluctuation in the character of

tonnage hauled in those two months:

Having that information, how would you undertake to account for the increase, not to say whether the road has made or lost, but to account for the increase.

A. I would ask one of two questions, either for the statement of the number of tons of each commodity handled and the average distance hauled, or I would ask if that was impossible and would require considerable work, I would then ask if there had been a general

or specific increase in rates on any commodity.

Q. Suppose the rates had been wholly unchanged: suppose that in the month of July the commodities hauled were low grade, all of them, and in the month of January the commodities hauled were all high grade: what effect would that have upon the revenue per ton per mile?

A. It would result in increasing it.

Redirect examination.

Mr. HILL:

Q. After the railroads got the state enjoined from making their own rates and you found an increase of 96% in the state rates, you could make a pretty good guess where it would come in?

A. I said, the first question I would ask was for a list of the com-

modities covered and the tonnage; or, if that was hard to get, I would ask if there had been a general increase in rates and if there had I would not have much further to go to get the reason for it.

3145 Charles S. Ludlam, a witness of lawful age, being duly produced, sworn and examined testified on behalf of the defendant as follows:

Direct examination.

By Mr. HILL:

Q. Please state your name, age, residence and occupation, Mr. Ludlam.

A. Charles S. Ludlam; age 43; residence New York City.

I am a certified public accountant under the laws of the States of New York, Illinois, Ohio, Pennsylvania and Missouri. I am a member of the firm of Haskins & Sells, Certified Public Accountants, whose main office is at #30 Broad Street, New York City, and who have branches in Chicago, St. Louis, Pittsburg, Cleveland, and London, England.

Q. Mr. Ludlam, please state somewhat the nature of the business of Haskins & Sells, giving a little history of the firm and its work

generally.

A. The firm of Haskins & Sells was organized by Mr. C. W. Has-

kins and Mr. E. W. Sells in the year 1893.

Mr. Sells, for several years prior to the organization of the firm, had been the Auditor of the Colorado Midland Railroad Co.

Mr. Haskins had been the Auditor of the disbursements

3146 of the West Shore Railroad Company.

Mr. Sells and Mr. Haskins, were selected by the Government of the United States to make an investigation and reorganization of the accounts of the Treasury Department of the Government.

They were brought together in this work, which continued for a period of two years, and upon its completion they organized the firm of Haskins & Sells to conduct accounting work.

My assocation with the firm began about three or four months

after it was organized.

Q. You have been with the firm continuously since then?

A. Ever since.

Q. Without going into detail, state somewhat the nature of the

work done by Haskins & Sells as public accountants.

A. We do auditing work for individuals, firms, and corporations. We devise and install systems of accounting, and make special examinations to determine the value and earning capacity of various properties and investigations for bankers and other financial interests.

A considerable portion of our work embraces the devising and installation of cost—accounting systems for various enterprises, princi-

pally of manufacturing companies.

3147 Q. From the various offices that you have, I infer that your firm does business in various parts of the United States and in England?

A. Yes, sir.

Q. Is that same character of service done in the various offices of your firm?

A. Yes, we have a large accounting practice throughout this coun-

try and Europe.

Q. What connection does your firm have with railroad work?

Give what you may do along that line.

A. Our relations with our clients are naturally of a confidential and professional nature, but there are a great many of the railroads that we audit that publish our certificate and consequently make the fact known publicly that we are their auditors, and I would feel at liberty to give their names.

Among others, I might mention the Lehigh Valley, Louisville & Nashville, the Atlantic Coast Line, the Philadelphia & Reading, the Erie, the Mobile & Ohio and the Carolina and Northwestern. is all that I recall at this moment, that publish our certificates.

In addition to that, we make a great many special examinations for railroads. Frequently we are called in to improve the systems

of accounting in various of their departments.

Q. What is the general nature of that work that you do for the clients whose names you felt at liberty to mention, 3148 and others whose names you have not mentioned? the general nature of that work, and what does it require of you to do in the performance of your duty to these railroad clients?

A. Largely the verification of their financial results and the im-

provement of their accounting methods and systems.

Q. Does your firm do considerable work for railroads along the lines you have indicated?

A. Yes, sir.

Q. Do you keep employed forces of men who are familiar with

railroad accounting and railroad work?

A. Yes, sir, we have quite a large number of men in our employ who have been railroad auditors and employed in accounting departments of railroads.

Q. I wish you would state your personal experience before you became connected with the Haskins & Sells Co., what work you have

done.

A. I started with the Pullman Co. in Chicago when I was fourteen years of age, as office boy in the Secretary's office.

I remained with the Pullman Co. for 16 months, having been advanced before I left there to the position of bookkeeper of the books relating to the capital stock accounts of the Company. I might say

incidentally that during the sixteen months I was with the Pullman Company, my salary was raised eleven 3149

times.

My health broke down then and I went out West, and in about two months I went to work with the Atlantic & Pacific at Albuquerque, N. M., now part of the Santa Fe System. I worked there about two and one half years.

I then went to Colorado as Assistant General Bookkeeper in the

Auditor's office of the Colorado Midland, a few months later be-

coming General Bookkeeper in the Treasurer's office.

I left that position to accept a position with Mr. J. J. Hagerman, capitalist in Colorado Springs, and was with him in Colorado Springs for several years; during that period being the Auditor and Accounting Officer of some seventeen—as I recall it, railroads, land, water and mining companies.

I then went down to New Mexico as Auditor of the Pecos Valley Railroad Co., and the Pecos River Railroad Co., and to represent Mr. Hagerman in various other interests which he had in the Pecos He had invested a very large amount of money in that

part of the country.

I remained there about two years, as I recall it, and then went to New York at the request of Mr. Sells, whom I had known in Colorado Springs, to become associated with Mr. Sells.

Q. You have been either an employee or a member of that firm

ever since, have you?

3150

A. Yes, sir. Q. Were you a member of the firm from the beginning, or an employee?

A. No, sir, I went to them to take a position as accountant and

I became a member of the firm in about 1900.

Q. What personal experience have you had in the way of investigating railroad accounts since you have been connected with I mean, whether you have personally given Haskins & Sells? study, thought and investigation to these railroad accounting systems, or have you left it to others.

A. I have had direct personal charge of many of our most important railroad engagements, and I have kept in touch, in a supervisory capacity, with practically all of our railroad engagements.

Q. I believe you are practically the head of the railroad accounting department of your firm, are you not?

A. I don't know as I want to say that. Mr. Sells-

Q. I mean, that work falls to you.

A. Mr. Sells is an ex-railroad auditor and he gives those matters considerable attention. Mr. Dunn, one of our partners, is also an ex-railroad auditor.

Q. But your work is largely along the line of railroad auditing

and investigation?

A. Yes, sir, a considerable part of it is. I have given a great deal

of attention to railroad work.

3151 Q. Since you have had actual experience, have you kept up in that way with the systems of railroad accounting and book-keeping, the division of expenses and the bases of dividing those expenses, as practiced by the railroads of the United States and other countries?

A. I think so, yes, sir.

Q. I wish you would explain, from an accounting standpoint, the method of installing a cost accounting system: if you were called upon by a railroad, or by an industrial or manufacturing plant or business house, to put in a cost accounting system—devise it and install it-what method would you pursue in performing

those duties for your clients?

A. My first attention would be directed to a study of the operating conditions; the product of the factory and the condition under which that product was produced. After I had studied the situation carefully I would proceed then to design a system that would determine accurately, or as nearly accurately as possible-of course, in all accounting systems there are certain items that you have to apportion-to determine on that basis the actual cost of the different products, or the various kinds of products that the factory might produce. That would embrace, first, the necessary accounting forms including labor reports, material requisitions, and all the different elements that would enter into the question of cost.

3152 Q. You would learn this from actual investigation of the particular business to which your attention was invited?

A. Yes, sir.

Q. Some questions have been asked from other witness-, indicating that an accountant would have to be an operating man in a particular business, before he could install a cost accounting system for that particular business:

What is your view about that? What has your experience taught

you in regard to that matter?

A. My judgment is that the operating man, as a general proposition, is the last man who is able to figure out his own cost; that is done by the accounting department and by the various cost de-

partments of the different manufacturing concerns.

Naturally, in installing a system of cost, we would confer with the operating man and familiarize ourselves with the operating transactions sufficiently to be able to devise forms and install systems that would take care of all the operating transactions, but we would never depend upon the operating man's opinion of what it cost him.

Q. If an operating man installed the system, the accountants

would go out of business?

A. I think also the operating men would go out of business.

There is nothing that is more generally recognized, I think, and coming to be recognized more and more every day, than 3153 the absolute importance of separating the operating and the accounting departments, particularly in railroads.

I can remember back in my day when the General Manager would instruct the Auditor how to charge certain expenses, but the financial interests, in so far as they control railroad accounting and railroad investments, have learned that it is imperative that the accounting officer should act exclusively on his own responsibility and be accountable only to the Board of Directors of the corporation, if you want to know the actual facts as to the result of operating the

property.

Any operating man could make a very fine showing for his property if he was allowed to direct how the different items should

Q. Explain why that is, particularly in railroad operation.

A. In order to ascertain the true results, the further you can separate the ascertaining of those results from the man who would be interested in the results shown, the more accurate your results will be, naturally.

Q. Then your object is to get actual conditions and apply your accounting knowledge to those conditions to properly apportion your

expense?

A. Yes, sir.

Q. You had some connection, did you not, Mr. Ludlam, with the Missouri rate litigation? 3154

A. Yes, sir.

Q. Just what was your connection with that and how deeply did

you go into that case?

A. Our firm was employed by the State of Missouri, by Governor Hadley, to determine as far as possible the cost of conducting the state business within the state of Missouri on certain of the railroads that enjoined certain rates that were prescribed by the Legislature of the State of Missouri. We were engaged on that work for nearly three years—I think two and one half years, or three years. went into it, I think, very exhaustively.

Q. Just what was the general character of the work you did for

the State of Missouri in those cases?

A. Very similar to the work we have done for the State of Arkansas. We made a study of the earnings and expenses of the road, and the division which was made between the state and interstate ex-

Q. Have you gone about this just as you would go about the installation of a cost accounting system for an industrial concern, as

near as the conditions would permit?

A. As near as the conditions would permit. Of course you cannot obtain the same results from a system that has been in use, that you might be able to obtain from the system that you your-

self installed. In other words, you cannot determine certain elements of cost in studying past records that you might be

able to provide for in designing future records.

Q. It would be more nearly analagous if I were to put my question that, if you were called upon by an industrial concern to examine their then existing accounting system and to improve it or change it, that would be more nearly the point of view in which you have gone into these cases, would it not?

A. Yes, sir, that would express it better.

Q. I do not believe I asked you how much personal connection

you had with the Missouri case.

A. I kept in touch with the work and took personal charge of it for a considerable portion of the time. During the course of our examination, including the time in Court, I think I gave probably four or five months of my personal time to that engagement.

Q. Who had the more direct personal charge of it? A. Mr. Taliaferro.

Q. Have you in that case and in this case made a study of the

accounting systems presented by the railroads and presented by the states, respectively, in these cases?

A. Yes, sir.

Q. I want to call your attention, in the first place, to the accounting system of dividing expense between state and interstate, offered by the railroad company, known as the revenue basis, with

which you are doubtless very familiar:
Mr. Frank Nay, Comptroller of the Rock Island Road, a
witness on behalf of the plaintiff, after giving his reasons 3156 that the revenue basis was preferable to a ton mile basis, as he saw it, said (page 301, volume 2 printed record): "after making the basic approximation of the operating expenses for intrastate freight or passenger traffic, the figures thus arrived at may be increased in the proper proportion to represent the excess of the cost of transporting intrastate traffic over the cost of transporting interstate traffic.

And Mr. McPherson, along the same line, after defining the revenue basis, said (pages 350 and 351, volume 1): "To this basis as a fundamental one, should be added such additional cost as may attach to the handling of intrastate business, over that of the inter-

state."

I will ask you to explain the force, if there is force, to the suggestions which I have read to you from these two witnesses of the plain-

tiff in explanation of the revenue theory as they advocate it.

A. I think that the revenue theory as used by the railroads in this case, and as used by the railways in the Missouri case, is unsound, illogical and contrary to all accounting principles, and I think those conclusions are testified to by the remark of Mr. Nay and Mr. McPherson which you have read to me; because, if the reve-

nue theory was the basis—an accounting basis I might say for determining the cost, then there certainly would be no reason for adding anything to the cost after you had thus

ascertained it.

Q. Why is that, Mr. Ludlam?

A. Because, after you have determined a cost, that is the cost, and when you attempt to determine your cost on your revenue basis, and then say that you must add, or that you must deduct, or that you must do anything else to that cost so obtained, you show you have not the cost to start with.

I read that whole treatise of Mr. Nay's and I must say that it was a surprise to me that a man of Mr. Nay's ability would build up so elaborate an argument covering several pages, and then, as I see it,

absolutely dispose of it in the last paragraph of his essay.

Q. That is the paragraph I read to you?A. Yes. After having explained very After having explained very elaborately how he would determine the cost, he goes on to say that having thus determined your cost, your cost is of no use unless you go to work and multiply it by two, three or four, or whatever you think fit.

Q. As I remember his testimony, he had prior to that explained that the revenue was proper, or it was the best measure, because it reflected the cost of the service; it reflected the cost of the servicethat is between state and interstate-how could you add something

to it then if that relation already existed?

A. That is exactly the point I make. That must necessarily be illogical in its basis, if after you have reached that basis you have got to add something and that addition must depend, not upon any established fact, but upon the opinion of different people, and you cannot find any two people—I make this statement as evidenced by the testimony taken in this case—you can hardly find any two people who agree as to what amount should be added, and Mr. Nay leaves that open.

Q. I believe, in the Missouri case, there was greater variation as to

that added amount than there was in this case?

A. Yes, sir. As I recall it, Mr. Sturgis started out with the proposition that you should add from seven to fifteen times. But I think after he was requested to figure out how much he would have to raise the state rates in order to make a profit on the state business if it cost fifteen times as much in proportion to the revenue to do state business as interstate, his views were modified. Or, at least, he did not advance the "fifteen times" in the latter part of his testimony, as I recall it.

Q. Passing from the question of the extra costs, and going back to the primary proposition of ascertaining your cost by the revenue derived from state and interstate traffic; how does that compare with the general accounting that prevails in business concerns generally

and with railroads themselves in handling their own force?

3159 A. It is absolutely contrary to all accounting principles and practices. I have never heard the revenue theory advanced for a basis of determining the expense, except in the Missouri case and in the State of Arkansas case.

Q. In what way does it run counter to accepted accounting prin-

ciples?

A. I would say both in the manufacturing, wholesaling and retailing and railroad business, on the ground that the ratio of profit is not the same on all transactions and necessarily cannot be.

Q. When you go to ascertain the value of the property, what significance do you attach to the grant of the property.

nificance do you attach to the gross earnings of the property?

A. Given the gross earnings by themselves they would mean nothing. I might illustrate that by saying that if an investor was thinking of buying a factory it would mean nothing at all to him to know that the gross earnings of that factory were a million dollars a year. He would have to know what the expenses and net earnings were. He would probably base his ideas of value upon the net earning capacity of the property.

If a man was going to buy a sugar factory, we will say, and an automobile factory, and he knew that the gross earnings of each was one million dollars, and that the combined operating expenses of

the two, we will say, 75 percent of the earnings, it would never occur to him to buy the sugar factory or the automobile plant on the basis of the expenses being the same as the ratio of expenses of the two together. He would find out as positively abd definitely as it could be ascertained on the actual facts, what the

actual expenses and the gross earnings of the particular factory he

was thinking of buying were.

You asked me about the relation of gross earnings. A plant might be earning a million dollars gross, and still be losing money; whereas another plant might be earning a million dollars and earning a large percent of profit. Consequently, unless you considered the expense and the resulting net earnings, the gross earnings mean nothing in themselves.

Q. Yet the railroads have used gross earnings in this case to de-

termine the relative profit of state and interstate business?

A. Yes, and I think it is illogical, unsound and contrary to all accounting principles, and I think Mr. Nay, in his last paragraph illustrates that more forcibly than anything I could say. It looks to me as though he had built up in several pages of essay an elaborate-you might call it a snow-man-only to knock it down in the last three or four lines; because he proceeds to say after you have thus determined your costs, they are not your costs, but you must find out what they are.

Q. I believe he also stated, if I remember it correctly, that unless there was a proper relation between the state and interstate rates-and by relation he meant relation of cost one to the other-that the revenue theory of dividing expenses would have

no value:

I think that is the substance of his statement on that.

Assuming that to be correct, what are you going to do with the extra cost that you have to put on it after you get it bottomed on the theory that there is a cost relation between the two to start with?

A. You will have to ask somebody besides an accountant, I think,

to find that out.

Q. Have you given study and investigation to the subject of whether there is a relation, cost relation I mean, between the revenue derived from state traffic and the revenue derived from interstate traffic?

A. Yes, sir. Q. What have you found in that regard?

A. As a result of my study, I am of the opinion that there is no relation; not only between state and interstate, but between the different rates in interstate and state.

Q. What do you base that in, Mr. Ludlam?

A. The examination I have made of the rates in the State of Missouri and the State of Arkansas, in a general way, and also 3162 the exhibits which have been filed in this case.

Q. Do you understand from your investigations, the sys-

tem upon which interstate rates are built?

A. In the sense that they are made largely on competitive and commercial conditions: I would not say as to any individual rate.

Q. I am not speaking of individual rates.

A. I know in a general sense, for instance, that rates from St. Louis to New Orleans are cheaper than from St. Louis to Little Rock, which illustrates the point I am trying to make.

Q. Are you also familiar with the varying distances on which

large movements are carried on the same rate? You have looked into those propositions, I presume.

A. Yes, sir, in a general sense. Divisions that are made on tap

line connections, things of that kind.

Q. Mr. McPherson says in his testimony (Volume 1, page 351): "My reasons for this opinion are that the revenues of the railway are derived from different sources; the transportation of passengers and freight, and from miscellaneous services rendered; rentals, etc.

A division of these earnings can be exactly ascertained and, naturally, they reflect the value to the railway of each class of the

service it performs."

Then he follows:

3163 "The passenger and freight revenue consist of both intrastate and interstate traffic; the revenue from each of which can also be exactly ascertained. Moreover, the "revenue basis" is reflective of the efforts of the traffic men who make the rates, to consider, in a measure, the value and character of commodities, and the risk and distance attached to their transportation. This is apparent in the classification of commodities into classes and the different rates established for their carriage.

The revenue derived represents the well-established and generally recognized elements considered in fixing rates of the railway for the

service it performs."

Then he takes up some illustrations. Now, I ask you to state what is your view of that analysis of the situation by Mr. McPherson.

A. Assuming that Mr. McPherson refers to the gross earnings, I disagree with him, because the value to the railroad of the business which it does is the net earnings which it derives therefrom, and not the gross earnings which it receives therefor.

Q. That is true whether you take it as referring to passenger and

freight; state or interstate; miscellaneous, or what not?

A. Yes, sir. Naturally the value of the business is what it will earn, not what it will earn gross, but what it will earn net. It would not profit a railroad to take a million dollars' worth of business if it cost them a million and a half dollars to execute it.

3164 Q. I call your attention also to the fact that in this case the railroads divide their property which is in the State of Arkansas, between state traffic and interstate traffic, in proportion to the gross earnings of each, after setting aside the miscellaneous:

I will ask you what your view is of that division?

A. I think that division is wrong, on account of the fact that the gross earnings, which fluctuate with every change in rate, are not, in my opinion, a fair basis to divide the property. I think you have a more equitable division if you will apportion your property on the basis of the cost.

In my judgment, the cost would represent more correctly the use made of the property by the different classes of business.

Q. Suppose there was an increase in state rates, without any exact proportional increase in the interstate rates:

What effect would that have on a division of the property or a division of the expenses?

84 - 813

A. The amount which the state rates were increased in excess of the interstate rates, would on the basis of apportioning property on the gross earnings, naturally increase the property assignable to the state business.

Q. Have you seen the exhibits out here by which it is shown that there was an increase of nine and a fraction per cent of interstate rates, and an increase of ninety-six and a fraction per cent on state rates, put in by Mr. Kimbell?

3165 A. Yes, sir; that increase appearing during the month of

These figures as I understand it, represent the increase Q. Yes. of tons per mile.

That is necessary, is it not, a result of fluctuation in gross revenue, that every time there is a change of rate, either state or interstate, as the case may be, producing a change of revenue, that there will be a change in the amount of property apportioned to the respective class and a change in the amount of expense apportioned to the respective class, when in fact there is no change?

A. Yes, sir. Apportioning the property, expenses or anything else on the revenue basis would naturally mean that if you carried a piano one day at one price, over a certain part of the road, and a month afterwards you carried another piano of the same kind, over the same piece of property and charged twice as much for carrying it; that your cost was twice as much and the proportional use of your property was twice as much in the latter case as in the former.

Q. If that piano happened to move in state business and the rate was double, it would to that extent increase the state property and state expenses?

A. Yes, sir, when figured on the gross revenue basis.

Q. If it happened to move across a state line and the rate was doubled or trebled, it would to that extent decrease the amount of interstate property and interstate expenses, and as a matter of fact there is no increase or decrease, as the case may be, in either, by reason of the change of the rate on that piano?

A. There would be no change in the cost or use of the property on account of the rate changing.

Q. Suppose they increased the piano rate 9 per cent in interstate traffic and 96 per cent in state traffic: where would you be then? A. I think you would be just where you started, on a false premise,

on the revenue basis.

Q. Mr. McPherson says at page 351:

"The revenue, therefore, expresses value, character, risk and distance, rather than quantity; and likewise considers to no little extent, the question of cost, as it is obvious that it costs more to transport some commodities, and commodities in small quantities, than it does other commodities, and commodities in larger quantities.

A consideration, therefore, of cost on the mere basis of quantity, would mean the blending of all classes of freight; a reduction of all classes of freight to a common unit, and the assumption that the cost of their transportation was equal. Also, that the length of haul and other conditions affecting the cost were equal or the same.

For these reasons, in my opinion, the revenue basis is a proper basis on which to apportion the cost, or to divide the cost of operation as between intrastate and interstate traffic."

I wish you would state wherein you think that is based on a wrong

premise, if you do think so?

A. He says, if I understand your reading correctly that they consider-

Q. Look over it if you did not catch it.

3167 A. (After examining statement:) —many other elements rather than quantity. I never heard of a railroad rate that

did not consider quantity.

I disagree with Mr. McPherson in this, because I think railroad rates do consider quantity equally with value, risk and distance, and I disagree with him in his premise that the revenue—by "revenue" meaning gross earnings-considers to no little extent the question of

He goes on and it seems to me he contradicts himself, because he

savs:

"It is obvious that it costs more to transport some commodities, and commodities in small quantities, than it does other commodities, and commodities in larger quantities."

I am unable to understand what he means when he says that they don't consider quantity, and then says that it costs more to transport commodities in small quantities and others in larger quantities.

Q. Does the revenue derived from the rates represent the cost of the service, as you find it in your investigations in your railroad

A. No. sir.

Q. Is there any system to your knowledge, by which a rate maker can ascertain the cost of service?

A. I don't think the rate maker, as a rule, has any specific data

as to the cost of the service.

He knows in a general way how much it costs per ton per 3168 mile, to move freight on his railroad—as a general rule he does not have that information by divisions—and he knows in a general way-to use the illustration that has been referred to here frequently, that a carload of baskets won't weigh as much as a car of pig lead, and therefore has some idea of equalizing, that they should charge more per pound for a carload of baskets than they should for a carload of pig lead.

Q. Well, there is a vast difference of expense upon one division

of the road than another, I should take it.

A. Yes, sir.

Q. We had evidence here this morning that the difference in the ratings of locomotives on the White River branch of the Iron Mountain and locomotives that were run on the main line of the Iron

Q. What effect would that have on the cost of the service?

A. There would be a great difference in the cost of service on different divisions of the line, according to the grades and curvatures.

Q. And the ability of the engine to handle larger or smaller trains, I suppose?

A. Yes, sir.

Q. Suppose there was a lime kiln on the White River branch on the Iron Mountain road and they wanted a lime rate: that lime would move on every other line of the road:

How would the rate man know the cost of the service when

3169 he started in to fix that rate?

A. I have never seen any statistics of any railroad company that would show the specific cost by divisions, of handling lime or

any other specific commodity.

Q. Have you seen the statistics of any of the railroads in operation in this southwestern country, that show the cost per ton per mile in the handling of the various commodities?

A. No. sir.

Q. Has any system been worked up so that a rate man can have the cost per ton per mile on coal, lumber or merchandise, as the case may be.

A. No, sir, not that I know of.

Q. Have you gone pretty fully into railroad accounts in this country and investigated that, so if there were such systems you would have some familiarity with them?

A. Yes, sir.

Q. Then when these gentlemen speak about the cost of service being reflected in the revenue, I would like to know if you can explain to me what basis they had in mind when they made these statements, if you are able to do it?

A. I think their basis is theories, the same as the revenue basis,

and not facts.

Q. I presume the rate maker has before him, or should have before him the cost per ton per mile of handling freight upon 3170 his entire road, for the preceding year:

What value would that be to him in making specific

rates?

A. In my judgment, I should say only in a general way. It would give him an idea, roughly, of the average cost of moving freight on his line, and in a general sense, a figure below which he would try not to go.

Q. That is about as far as they have gone in the statistical work

of the railroads in the southwest, is it not?

A. As far as I know, yes, sir.

Q. Mr. Ludlam, have you spent any time and investigation in trying to work out any division between state and interstate, which was nearer the actual facts than the revenue theory?

A. Yes, sir. My firm has prepared a statement in this case, that we think reflects pretty closely the cost of the two classes of

business in the state of Arkansas.

Q. Have you devised and assisted in the preparation of that method of accounting?

A. Yes, sir.

Q. I believe you begin this division by first taking a division

between freight and passenger?

A. We accept the companies' figures on the freight and passenger. We have not gone back of the statement submitted by them in this case.

Q. Upon what basis did they divide that?

A. I understand they divide that upon the revenue train mile-

3171 Q. You began, then, where they left off?

A: Yes, sir.

Q. Taking up the freight side of the matter, take the first account, "Maintenance of Way and Structures":

I wish you would state, without going into detail, the basis used

and why you adopted that basis?

A. I might say that to start with we have attempted to allocate, as far as possible, the freight expenses to the local and through trains. It having been testified to in this case and it being a well known fact that there is a considerable difference between the cost of operating local and through trains, we have attempted to allocate the expenses, as I say.

Q. That was the beginning point of your work?

A. Yes, sir.

Q. Owing to the difference in the cost of local and through trains, in trying to ascertain what that was? A. Yes, sir.

Q. Is there a difference between the cost, state and interstate, strictly speaking, or is it a difference that grows out of the use of one kind of service more than the other kind of service?

A. Out of the use of one kind of service more than another kind of service, and also in my opinion, on account of the increased use

of station facilities in the state service.

3172Q. The mere fact that the traffic passed a state line has no effect upon it?

A. No, sir.

Q. Have your investigations led you to form an opinion as to whether there is a difference in the character of the traffic carried by the trains in Arkansas, as between state and interstate, carried by the trains through Arkansas or in this southwest country?

A. No, sir, we find no difference in the general character of

freight carried by the two classes of trains.

Q. I believe some of the witnesses testified they moved inseparably is that your view of it?

A Yes, sir.

Q. Take up that first division: you are seeking to work out the cost between local and through trains:

How would you take care of the first item of expense, "Maintenance of Way and structures"?

A. The maintenance of way and structures "expense" freight have been divided between local and through train service on the basis of the total engine and car miles of each class during the month of October, 1908.

Q. 1907?

A. 1907 in the Iron Mountain and 1908 in the Cotton Belt, that month being considered representative of the business for the six months ending December 31, 1907.

Q. Why did you use a car mile as the basis for that division,

or engine mile, as the case may be?

A. We considered that the engine and car miles represent more correctly than any other ascertainable quantity, the use which was made of the track; the use which was made of the prop-

erty that these expenses represent the cost of maintaining.

Q. There has been evidence in this case to the effect that a large part of that item of expense is due to the elements, wind and water; matters with which the actual operation of the road is not concerned—the actual running of trains is not concerned in the operation of the road, I mean.

What do you say to the justice of dividing those expenses that

are not caused by the running of trains, on a car mile basis?

A. I think it is entirely equitable and proper. The question of whether the actual running of trains wears the tracks out, or whether the elements wear the tracks out, and the other property that is put there for the operation of trains, is immaterial. You have to charge the expense which is incurred for the use for which it is incurred. They maintain the track and maintain the property in order that trains may be operated over the property, not on account of the weather or elements wearing the property out. They don't repair it merely to replace the wear and tear of time or the elements, but they do it in order that they may operate trains.

3174 Q. That road-bed is not there for ornamental purposes?

A. No, sir. It is exactly the same as in a case, for instance of a chair factory: when you would have to repair the roof on a chair factory it is an expense incurred which you would apportion to the cost of the chairs manufactured in that building, although, as a matter of fact, the actual making of a chair in that building has nothing to do with the wearing out of the roof. But it is a part of the cost of maintaining the property and you charge that cost to the use which is made of the property. That is an ordinary accounting principle.

Q. Is that a principle that is recognized by accountants generally and railroad accountants in the working out of accounting systems

and properly distributing costs?

A. Yes, sir.

Q. I see you have added in this paper, fifty percent to the engine mileage of local trains for station switching, and have assumed that each engine mile was equivalent to two and one half car miles:

What is the reason for that, Mr. Ludlam?

A. Well, the local train does a large amount of switching at stations and there is some element of increased cost in connection with that work. We felt that fifty percent was probably the maximum amount that would possibly be claimed for that service, and therefore allowed fifty percent to be added to the engine mileage of local trains.

Q. That was an item of extra expense which should be 3175 borne by the local train and you were trying to take care of in this, all items of extra cost of one train over the other?

A. Yes, sir.

Q. The next item I see added—some of the witnesses called these "arbitraries"-was counting a locomotive equivalent to two and one half car miles:

Q. How did you reach that conclusion, and why did you reach it?

A. That is a basis frequently used by railroads, based somewhat because the average locomotive has twenty wheels and a freight car has eight wheels. It is usually roughly figured about two and one half car miles to an engine mile, on a wheelage basis.

Q. That is another effort to get as near the actual value as you

might put it of the property, between the engine and the car?

A. Yes, sir, it is an attempt to apportion as nearly equitable as possible these expenses.

Q. The next item is "Maintenance of Equipment":

The first sub-head is (a) Locomotives:

I wish you would state generally how you have apportioned those

expenses and why you have done so.

A. The expense of maintenance of locomotives, freight, has been divided between yard, and local and through road locomotives, on the basis of the locomotive mileage of each class during the month of October, 1907, in the case of the Iron Mountain, and October, 1908, in the case of the Southwestern.

We have added to the mileage of the yard locomotive fifty percent to provide for the possible extra maintenance due to yard service, and have added fifty percent to the mileage of the road locomotive in local service to provide for the possible extra switching mileage, and again, we have added fifty percent to the switching mileage of the local train engines thus ascertained, to provide for the possible extra maintenance due to switching services, making a total of seventy five percent added to the local engine mileage.

Q. Explain just why that is done, Mr. Ludlam.

A. Well, we thought that there was an extra maintenance expense in connection with yard locomotives, as compared with road locomotives, on account of the switching they did, and we thought that fifty percent was a maximum for any such expense.

In the case of the locomotives in local service, we also added fifty percent to the mileage to provide for the switching which they did at local stations, and then added fifty percent again to that figure to provide for the possible extra maintenance, as we felt there was

some extra cost incurred by those locomotives in connection 3177 with the switching that they did.

Q. You think these items cover that extra cost? A. I am inclined to think they are excessive.

Q. That they more than cover it?

A. Yes, sir.

Q. Now, the next item under that expense of "Maintenance and Yard Locomotives" is divided between local and through service on the basis of the number of cars of each class of service handled by yard engines during the given month, and the total number of cars handled at terminals:

What do you say to that method of apportioning the expense?

What is your reason for using that basis?

A. We think that the number of cars which the locomotives handle is the most correct basis possible for apportioning the expenses.

Q. Should there be any difference in the character of cars that

are handled by locomotives in that item of expense?

A. No, sir, not in our judgment.

Q. Take the next item of "Freight Cars":

A. We think that the cars in and out of terminals is the most equitable method to apportion the expenses of yard engines.

Q. The next one I call your attention to, Mr. Ludlam, is (b).

A. Freight cars?

Q. Yes, what is the principle upon which that apportion-3178

ment is made?

A. Principally on the car mileage basis, but before applying the car mileage basis we have taken into consideration the element of repairs due to the stopping and starting of trains at way stations and the repairs due to extra terminal handling of cars in the local service.

We have accepted the figures given on this expense by Mr. A. M.

Wellington.

Q. I believe it is already in evidence that that is considered a standard work on this subject?

A. I so understand.

Q. Your effort there is to take care of these elements of extra cost chargeable to freight cars in the local service, according to the best standard you can find?

A. Yes, sir. Q. What do you say to the use of the car mile as a division of

that expense, primarily?

A. After making the allowances stated, I think the division of the balance of the expense on a car mileage basis is equitable and proper, and I think the fact that expenses of this nature apportioned to Arkansas by the railroad company is made on a car mileage basis is a verification of that basis.

Q. That is a fact, I believe, in testimony already by Mr. John-

son?

3179 A. I so understand.

Q. The railroads having made the apportionment of expenses included in their exhibits, on that basis, you could not very well take any other, could you?

A. Well, I would not say that. If we thought there was any more equitable way, we would have taken it, but we thought that

was the most equitable and therefore we took it.

Q. Here is an allowance for a stop every five miles on the local trains and twenty miles on the through trains, as affecting the expense of repairing cars:

I wish you would state the object of making that allowance.

A. The local train does stop oftener than the through train, and there is an element of expense that is due to the stopping and starting of freight trains,

It is, therefore, assumed that the local train makes a stop every five miles and the through train every twenty miles. I think it is

rather overcharging the local train.

Q. You had some information on that subject, did you, that made you believe that you were putting the maximum on that?

A. We believe we are charging the local train the maximum on

that account.

Q. I wish you would explain item (c) "Supervision and Gen-

eral":

Why has that system been adopted? It runs all through 3180 this exhibit, not only as to this item but as to general expenses.

A. It is a well recognized accounting principle that you arrive at the most correct results that are obtainable, by apportioning the indirect expenses which cannot be specifically allocated in the ratio

of the direct expenses which can be specifically allocated.

That is to say, if your direct expenses are one hundred dollars, and your indirect expenses ten dollars, or ten percent thereof, that you would apportion the ten percent on the basis on which you were specifically able to locate the elements composing the one hundred dollar item.

Q. Is that recognized in all accounting systems, Mr. Ludlam? A. Yes, sir, that is the generally adopted method of distributing

indirect expenses. Q. I wish you would define just what you mean by "indirect ex-

penses."

A. Expenses that cannot be specifically charged to—in the railroad business-to the different classes of service; or, in the manufacturing business, to the specific article of manufacture, such as salaries of superintendents, stationery and printing, heating and lighting, and things of that nature. When I say heating and light-

ing, I am referring to the manufacturing business. Q. What would you class in the railroad business as "supervision and general"? I don't mean each detail of it, but 3181

just give us a general description of it.

A. The supervision of the maintenance of equipment and the general expense in connection therewith which could not be specific-

ally located as applicable to the various classes of cars.

Q. You take this under this general sub-head formulated by the Interstate Commerce Commission, of "maintenance of equipment" and take all items that you regard as belonging to the class called "supervision and general" and apportion those due to that particular service on a basis of a direct charge? Is that the plan?

A. Yes, sir.

Q. When you take the road as a whole—to save repetition I believe in this exhibit it is will take up the next sub-division-I believe in this exhibit it is "general expenses" the fifth sub-division in this exhibit, seems to have the same principle as a method of dividing-

A. Yes, it is impossible to say how much of the President's salary attaches to a local train or to a through train.

Q. Or to state or interstate?

A. Or to state or interstate. The same is true of the salary of the clerks in the auditor's office or any of the items entering into "general expenses."

Q. How does that result as a general accounting proposi-3182 tion, taking the salary of the President, how is that distrib-

uted under this system?

A. Having specifically apportioned all of the expenses that you can, then you apportion the indirect expenses which would include the salary of the President, on the basis of the direct expense.

Q. And that is the system which you have followed throughout here, in all your general expenses and all overhead expenses, I be-

lieve?

A. Yes, sir, in all of the general or overhead or indirect expenses. Q. The third sub-division in this exhibit is the "Traffic expenses":

I wish you would state what basis you took there and why you

A. We accepted the company's basis there and apportioned traffic expenses on the revenue or gross earnings.

Q. What do you say about that being a proper basis?

A. I don't think that is a proper basis and I think it overcharges the state business.

Q. Is there any way that you can find a proper basis of that and the way the railroad accounts are now kept; or is there any basis that would be better than that?

A. Well, I think almost any basis would be better than the reve-

nue basis.

Personally I am inclined to favor the ton mile basis because the larger part of those expenses are incurred in obtaining competitive or long haul business, and your interstate freight on the average moves so much further than your state business that I think if you apportion that on a straight ton mile basis it would not vary very much from the actual fact.

Q. It would be a more favorable basis for the state to use in this

case than the revenue, would it not?

A. Yes, sir. Q. But even on that basis, Mr. Ludlam, does that reach the proper apportionment of business between state and interstate?

A. No, sir, not in my judgment, because that would be charging proportionately each ton mile of state freight with the same amount of those expenses that you would apportion each ton mile of interstate freight, and I am of the opinion that a larger proportion of the expenses should attach to each ton mile of interstate freight, to the ton mile, than to any ton mile of state freight.

Q. I do not suppose we need to dwell on that very much as our

friends on the other side-

The next item is "Transportation expenses": The first sub-heading under that is "Station expenses":

I wish you would explain the basis used there and why that basis

was used?

A. We have divided the station expenses between the state and interstate business on the basis of the number of tons of each class of traffic, assuming, however, that each state ton was handled twice and that each interstate ton was handled

Station expenses apply to the handling of the freight at the once. stations very largely, and we thought that it was fair to apportion those expenses on the basis of the tons handled, rather than on any

other basis.

In making that division we assumed that each ton of state freight was handled twice, because naturally there would be an originating and a terminating terminal on each ton of state freight, and we assumed that each ton of interstate freight was handled once.

Some of the interstate freight is handled twice in the state—when I say handled twice in the state, I mean so far as the apportionment of expenses go-notably the interstate freight into and out of Mem-

phis and Ft. Smith.

It is also shown in the testimony given in this case that there is a considerable handling of cotton, grain and lumber, interstate commodities of that nature, and we thought that on the whole it would be a fair average to assume the interstate was handled once, that each ton of interstate was handled once and each ton of state freight was handled twice.

Q. Is there not interstate less than carload that has more than one

handling in the state?

A. Yes; the interstate less than carload, in my judgment, would be handled at least twice and in many cases four and five

times in the state. 3185

Q. It seems that you and Mr. McPherson are somewhat in accord on the use of tons for this purpose. I will read you his

testimony from page 325:

"A third measure of which the railway company keeps a record is 'tons'. But this measure is useful only for minor services. Unless tons are combined with some other factors they do not represent transportation. The minor uses for which tons are employed may be the quantity handled by the men employed, and for some other purposes of statistics generally interesting to the railway com-

Is this such a use of it as he indicates there that the railroads make

of it?

A. Yes, sir. Q. The next item under "transportation expenses" is "yard and terminal expenses":

They are divided between local and through on the basis of

the number of cars handled at terminals:

I wish you would explain that method of division of expense at terminals and why you used the method? A. Well, because we thought the cars handled—the terminal is the best basis of apportioning the yard and terminal expenses, the yard and terminal expenses being incurred for that purpose.

Q. That is another adaptation of the expense according to the use.

is it not?

A. Yes, sir.

Q. The next sub-head is "Engine house expenses":

3186 You make an assumption that the local engines require 12% more engine house service per engine mile than the through engines, and that is based on the average engine run in the two classes of service. Would that take care of the extra expense?

4. We think so, yes, sir.

Q. The next sub-head is "other train expenses": Is that again the proposition of the indirect?

A. No, sir, that is divided between local and through service in proportion to the train miles of each class of service during the month in question.

Q. Would that be a proper division?

A. In my judgment it would.

such movement: that is a summary of that, is it not?

A. Based on the claims actually paid during the month of October.

Q. The "total operating expenses" are divided between local and through train service, and intrastate and interstate business, and the costs are intended to include everything relating to the direct cost of the movement of freight trains with all expenses incident to such movement: that is a summary of that, is it not?

A. Yes. sir.

Mr. HILL:

Q. Mr. Ludlam, I believe we got down to the 7th subdivision of this exhibit?

A. Yes, sir.

Q. I wish you would please explain that.

A. The 7th subdivision is an explanation of the method of dividing the train costs; that is, of apportioning the expense of the local freight trains and the expense of the through freight trains, after the same have been determined, as heretofore explained.

Q. Why is that the basis?
A. That basis of division is made on the business done by the two trains, as determined by the statistics, for the month of October, 1907.

That is to say, we found that 39.10 per cent of all the state tonnage miles and 8.70 per cent of all the interstate ton miles of freight were handled on the local train.

Q. Which exhibit have you?

A. The Iron Mountain. And that 60.90 per cent of all the state business and 91.30 per cent of all the interstate ton miles were handled on the through trains.

We assumed that the same relative conditions would exist during

the six months ended December 31, 1907, and apportioned the expense of the local trains and of the through trains on 3188 That is to say, the expense of the two classes that basis. of trains as determined, was distributed over the business which the examination showed that the two trains did.

Q. Having ascertained the relative expense of the two trains, how

did you reach the intrastate and interstate division?

A. On the basis of the intrastate and interstate business done by the two classes of trains.

Q. Taking the actual ton miles of each?
A. Taking the actual ton miles of each as shown by the October statistics.

Q. In closing that freight side of the case, I see that you take the miscellaneous revenue; taxes, rentals and value of the property, and divide them on the straight revenue basis:

Why do you do that, Mr. Ludlam?

A. We accepted the railroad apportionment of those items, not having any specific information or data on which to apportion them.

Q. The result of that is that you have taken their apportionment to start with and worked out and analyzed the details of it?

A. Yes, sir.

Q. And brought the results as shown?

A. Yes, sir.

Q. I wish you would take up the passenger side of the 3189 proposition and explain your method of proceeding under that: how did you proceed to work out as between state and inter-

state, on the passenger side of the proposition?

A. We divided the passenger expenses between the coach and the Pullman service, and the intrastate and interstate, mail and express business, practically on a car mileage basis. The mileage used in that was the month of October, 1907.

The passenger train mileage fluctuates very little from month to

month.

We included in the car mileage the mileage of baggage, dining and parlor cars, and we show in this exhibit the percentage which the car miles of each class of the different kind- of cars bore to the total car mileage of the passenger cars.

Q. That is coach, Pullman, mail and express, are separated?

A. Yes, sir.

Q. And the cost of each ascertained on the basis shown?

A. Yes, sir.

Q. You followed the same general plan, I believe, as you did in the freight, as far as it was applicable?

 As far as we considered it applicable to the passenger business, Q. I will call your attention to the sixth sub-division "total operating expenses": 3190

I wish you would explain briefly the meaning of that state-

ment.

A. The total passenger operating expenses have been apportioned, as we explain in the exhibit, between coach and Pullman, intrastate and interstate, mail and express business. Such items as were not chargeable to the cost of the train service we apportioned direct to the state business and the interstate business.

The expenses applicable to the mail and express business were

assigned to those two classes of business,

Q. What did you do with the Pullmans?

A. In what way?

Q. Explain how you divided them between interstate and intrastate.

A. We apportioned that arbitrarily, twenty five percent to the state business and seventy five percent to the interstate business.

Q. Was that on the theory that twenty five percent of the use of

the Pullmans was by intrastate passengers?

A. It was on the theory that not to exceed twenty five percent of the Pullmans would be by state passengers.

We thought twenty five percent was a liberal estimate.

Q. I think likely it is an over-estimate.

A. We thought it would fully cover any use of the Pullmans by

state passengers.

3191 Q. I see the cost of mail and express business was ascertained before making the division of coach and Pullman expense: how did you reach that? That is in the eighth subdivision that I am referring to.

A. Well, that is explained in this exhibit; principally on the car mileage basis, or where the same cars were used for mail and express, by an apportionment on the space actually used by the two

classes of business.

Q. Which page is that apportioned?

A. Under the various heads. It enters into all, practically all

the different items of express.

Q. I was looking for the head where you made a charge of ten cents on that mail business; that was on station service?

A. Yes, sir.

Q. That is (a) under 4?

A. Yes, sir. We made an allowance of ten cents per day for handling of mail at certain stations,

Q. What was the reason for that?

A. That is an estimate of the amount it would cost them to deliver the mail where the contract required that the railroad deliver the mail to the post office.

Q. That is an item of expense to the railroad, is it not?

A. Oh, yes, sir.

Q. I believe you had some eminent railroad mail expert

3192testifying to that did you not?

A. Yes, sir, we had the testimony of some railroad official given in conection with mail service. I think it was Mr. Peabody of the Santa Fe.

Q. I believe Mr. Wharton said it was Mr. Teachout.

Mr. Ludlam, in your opinion what do you think of these bases of expense between state and interstate, which these exhibits which we have gone over have worked out, as comparable with other methods of dividing state and interstate business and expenses?

A. I think they are as nearly correct as it is possible to make

Q. How do you think it compares with the ton mile division; or bases of division of expense which have been used in the Missouri cases and probably in other cases?

A. I think it is an improvement over the division on a flat ton

mile basis.

Q. In the Missouri case, I believe, after making a division on the flat ton mile, there were additions made to cover extra cost, based upon opinion: is that correct?

A. Yes, sir.

Q. What do you think of this as compared to the flat ton mile where part of the results were dependent upon opinion evidence, without data?

A. I think we get nearer to the actual facts in this division than in an allowance made largely upon a basis of judgment. 3193

Q. Here is the statement of Mr. McPherson giving his reasons why the ton mile basis is not a true basis (Volume

1, page 327):
"The 'ton mile' basis has been considered academically and discussed as available for the purposes of determining cost, but it will not bear the application of practical facts, nor stand an analysis from an operating standpoint.

It must assume, if it is to truthfully reflect the cost of operation, that all commodities can be reduced to a common basis of trans-

portation cost."

That is the first proposition: Now, Mr. Ludlam, is that statement How, whatever may be its truth applied to the ton mileage, is that true, and can this criticism be justly directed towards the method of apportionment of cost which you have worked out in this exhibit?

A. We think not.

Q. Why?

A. Because we have determined the cost of the local trains and the cost of the through trains, and then apportioned those costs between the state and the interstate business, on the basis of the tonnage of each class of business handled by the two classes of

Q. That obviates the reduction of all commodities "To 3194 a common basis of transportation cost," to use Mr. McPher-

son's language?

- A. Yes, sir. Q. When you came to the passenger side of the question have you obviated that—
 - A. Yes, sir, we think so. Q. —by separating it?

A. By determining the cost of the different classes of service and apportioning that on the basis of the service rendered.

Q. The next objection he has is this:

"Further, it must assume that all conditions on railway com-

panies are alike, and that the conditions on each railway are alike in all of its parts, divisions, and districts."

Is this division subject to that criticism?

A. No, sir, we think not, because we have again, as I say, apportioned the train cost and the cost of the train are apportioned upon the business handled by the train.

Q. Next he says:

"It must assume also, that a short haul and a long haul of traffic may be made at pro rata cost."

Q. Have you taken care of that?

A. We think so, because we determined the cost of the local trains and the cost of the through trains. The local trains would naturally handle the short haul and the through trains the long haul business.

Q. Next he says:

"It must likewise assume that the efficiency of the cars in intrastate and interstate traffic is equal."

What do you say to that criticism?

A. We have distributed the expense of the car according to the train under which it was handled.

Q. So there is no assumption in this case at all, then?

A. No, sir.

Q. He says:
"It must also assume that every ton mile moved over the railway uses all facilities that every other ton mile moved over the railway uses, and that every ton mile moved over the railway uses all the facilities provided by the railway company for its operation:" what do you say to that?

A. Having made specific allowance for the increased cost of switching and repairs incident to the local service—that is, the service of local trains, and distributed the station expense on the basis of the tonnage handled at the station, we think this method

takes care of that.

Q. And removes the objections which he and others have indicated toward that ton mile theory?

A. Yes, sir, it seems so to us.

Q. Let us analyze again these objections and see how nearly applicable they are to the revenue theory, Mr. Ludlam:

He says, referring to the ton mile basis:

"It must assume, if it is to truthfully reflect the cost of operation, that all commodities can be reduced to a common basis of transportation:"

What does the revenue theory assume on that subject?

A. I think that it would assume that far more than the flat ton mile theory on account of the large fluctuations in the revenue on the different lengths of haul, and without any regard whatever to the actual cost of earning that revenue.

Q. Taking all these divergent revenues and reducing them to a

common level as representative of the cost?

A. Yes, sir.

Q. The flat ton mile, would, in a measure, do that same thing, if you did not make allowance for these extra costs?

A. Yes, if you did not make allowances. Q. Next he says:

"Further, it must assume that all conditions on railway companies are alike, and that the conditions on each railway are alike in all of its parts, divisions and districts:"

How does that fit the revenue theory?

A. That would apply specifically to the revenue theory in so far as the trans-state business is concerned, where the 3197 revenue is apportioned on a track mileage basis without regard to the expense of operating, or the difference in expense of operating different divisions, and the question of the engine capacity on different portions of the road. That is, where the revenue is pro-rated on a mileage basis it necessarily is exactly the same for each mile in the State of Arkansas. Whereas, according to the testimony that has been given, and also, it is a well-known fact, that the actual cost of operating varies not only on different rail-

roads but on each division of a railroad. Q. In the exhibits in this case, as I understand it, the trans-state revenue is arrived at by taking a mileage division based on the main

line of the road, is it not?

A. Yes, on the line of railroad over which the traffic moved.

Q. I should not have said the main line; I meant the single track mileage over which it moves. I meant it does not take into consideration the sidetracks, or anything of that kind in making the apportionment.

A. No, sir.

Q. Now, if there was a division of the rate in Missouri that owing to grades it would be very much more expensive to operate than a division in Arkansas, to use Mr. McPherson's language, that reve-

nue basis would make the condition on each railroad alike

in all of its parts, divisions and districts?

A. Absolutely, where you distribute your gross earnings on a mileage basis you apportion to each mile of track over which that freight moves, exactly the same amount of revenue, and then when you take your expenses as a per cent of that revenue, you necessarily assume that the cost is identical on each mile of road. Nothing could be more level than that.

Q. He next says:

"It must assume also, that a short haul and a long haul of traffic may be made at pro-rata cost":

What assumptions of that kind do you find in the revenue basis,

if any?

A. As a general average, the revenue is greater per ton per mile on the short haul than it is on the long haul, but there are constant

exceptions to that, as can be shown by the rate.

For instance, the revenue theory would assume that it cost far more to move a car of sugar, we will say-assuming that the rate on sugar and salt varies as much in Arkansas as it does in some cases—than it would a car of salt of the same weight, the same distance.

That is to say, it would level the expense of moving the car of salt and the car of sugar to an average of the two. It would overcharge on one car and undercharge on the other, according as the revenue fluctuated.

Q. He next says:

"It must likewise assume that the efficiency of cars in interstate and intrastate traffic is equal":

What will the revenue theory do with that?

A. Well, the revenue theory will assume, for instance, that the efficiency of the car, we will say delivering less than car load freight, was only one half as great in the case of the interstate as it would be in the case of the state freight, because they would be receiving only one half as much per ton per mile on the movement of that freight.

Q. I believe it is in evidence here that as a matter of fact they are

handled about the same.

A. They are both handled in the same car, right beside each other. The same car; the same crew, and the same station force.

Q. Now, he says next:

"It must also assume that every ton mile moved over the railway uses all facilities that every other ton mile moved over the railway uses, and that every ton mile moved over the railway uses all the facilities provided by the railway company for its operation":

What assumption, if any, does the revenue basis take in regard

to the use of the facilities of a railroad?

A. Well, if the revenue basis is used to apportion the expenses, you take the per cent which all the expenses bore to all the revenue, and necessarily all the expenses include all those items of expense.

Q. Spread it out to every class of traffic, whether used or not.

A. Yes, sir.

Q. And make no allowance, as you have made here, for extra cost of any particular kind, not extra cost, but as near as possible the exact cost of each line of traffic?

A. No allowance whatever.

Q. Mr. Ludlam, should there be any depreciation charged in these accounts when you are seeking to divide state and interstate business?

A. No, sir, I think not.

Q. Why not, I wish you would explain your views about that?

A. Because the charges made by the railroad for maintenance of its way and structures and its maintenance of equipment, provides for the depreciation of property. It is a well known fact that taking the railroads as a whole, throughout the country, that during the last fifteen or twenty years, the properties have been vastly improved. That the cost of operation, that is, that the charges made to operating expenses for maintenance both of roadway and track and

of equipment, have resulted in actually improving the road-3201 way and largely increasing the efficiency of the equipment of

railroad property.

When a rail wears out, for instance, and a new rail is put in to take its place, the expense of that replacement is charged to the operating expenses. That same plan is followed and has been followed out by the railroads generally throughout the country.

Q. Take a new tie: how is that taken care of?

A. The same practice prevails, an old worn tie is taken out of the track and a new tie is placed in the track to take its place. All the expense in connection with that transaction is charged to the

operating expenses of the company.

I should say, speaking generally, and I have no doubt that would apply to the Iron Mountain in the state of Arkansas-it certainly would to all of the large railroads throughout the country,-that during the last ten years there has been a large appreciation in the property rather than any depreciation through the charges which have been made to the operating expenses of the different companies.

In fact, I think it is believed by a great many people, that an actual appraisal of the railroads made today would show a valuation

far in excess of the original cost of the property.

Q. That is on account of this process that you are speaking of?

A. Yes; constant improvement going on in the railroads and has been for the last twenty years and it has been the practice 3202 in this country to charge a large proportion of those improvements and betterments against the operating expenses of the property.

Q. The Interstate Commerce Commission has made some rule on

that subject, has it not?

A. Yes. They have recently required the railroad companies to charge specifically against their operating expenses for the depreciation on their equipment and that has been done in my judgment, to a very large extent, to prevent the overcharging to operating expenses of new equipment.

Q. Do you know when that rule went into effect?

A. I think it was July 1, 1907. It was two or three years ago.

Q. Now, Mr. Ludlam, on this division of mail and express, miscellaneous expenses growing out of the mail and express and other miscellaneous sources, the railroads in this case have begun by setting apart the proportion of expenses on the revenue basis and leaving the freight and passenger business to be taken care of on another basis:

I wish you would express your views about the soundness of that

method of division?

A. I think that method of attempting to determine the expenses applicable to the mail and express business is erroneous, as is any other based on the revenue basis. It is assumed to start with, that the proportion of cost of doing the mail business is the same as the proportion of cost of all of the other business done by the company. It has not relation to the actual facts in the matter.

Q. Is there any reason why the proportion of that cannot be ascertained on a very definite basis instead of adopting this revenue

theory?

A. We think that in our statement we have determined the approximate cost of doing that business, certainly far more accurate

than any apportionment on a revenue basis could be.

Q. To illustrate your point: It is in evidence here that some twenty years ago the Missouri Pacific Railroad Company made a contract with the Pacific Express Company by which the railroad company was to receive 50% of the gross earnings of the express company and have the exclusive privilege of doing express business on the Missouri Pacific line then owned and after acquired and controlled by it.

In consideration of that contract it also gave the Missouri Pacific Railroad Company 40% of the capital stock of the express company,

amounting to \$2,400,000.

It is also in evidence that that capital stock has been for many years paying the Missouri Pacific Railroad Company 6% actual dividends. It is not in evidence how much service they have performed, but they are paying those dividends and paying them with great regularity and precision.

regularity and precision.

3204 Now, assume as a legal proposition that the Iron Mountain is entitled to a part of the stock as a part of the price for carrying the express: what effect would that have on this division

of property and division of expenses on the revenue basis?

A. Any dividends received on that stock which would apply to the Iron Mountain Railroad Company or any earnings of the express company over and above the dividends which it actually paid which would be applicable to the Iron Mountain Railroad Company, if considered in the light of additional remuneration for carrying express business, would immediately increase the express earnings of the reilroad company and attempting to determine their expenses on a revenue basis, the expense of conducting the express business would be correspondingly increased immediately.

Q. And would leave a smaller percentage to be worked out be-

tween state and interstate?

A. Freight and passenger.
Q. I meant to say freight and passenger, and following that between state and interstate?

A. Yes, and an illustration there of the fallacy of the revenue

basis is accorded by the face of this contract.

If the express company—disregarding for a moment the dividends and surplus earnings of the express company—sees fit to raise or

lower its rates for carrying express matter, the expenses of the 3205 railroad are immediately increased or decreased accordingly,

inasmuch as the railroad company receives 50% of the gross earnings of the express company as their proportion of the express earnings. And if you distributed the expenses on a revenue basis, the expenses would fluctuate every time the express company raised or lowered their rates.

Q. There has been quite an agitation going on about the price of carrying mails: suppose Uncle Sam would think the railroads are badly oppressed and did not get enough money for it and increased their mail rates: what effect would that have on the division of the expenses?

A. Apportioned on a revenue basis, if the company received more meney for carrying mail, the expense of carrying the mail would immediately increase correspondingly.

Q. Without any change in the service?
A. Without any change in the service.

Q. And if it was lowered it would work the other way?

A. If they reduced the amount paid the railroad company for carrying the mail, the expense, if apportioned on a revenue basis, would immediately decrease.

Q. And you would have a bigger problem to work out between

your freight and passenger?

A. The expenses assigned to the freight and passenger business

would be correspondingly increased.

Q. Mr. Ludlam, there has been a great deal said in this case about the trans-state business and the cheapness of trans-3206 portation of freight on trans-state trains:

I want to read you a statement of Mr. McPherson (Vol. 1,

page 326):

"The railway company establishes by accurate test, the hauling capacity of each locomotive, over a particular district or division to which it is assigned, and this establishes a measure that we designate as the 'potential capacity' of the locomotive, and the number of tons the locomotive draws from day to day is recorded, to determine whether the operating officers in charge of the various divisions or districts, are securing the full measure of the efficiency of the power."

3207 Q. In handling trans-state freight through Arkansas, say into Moselle, it would have about these routes to follow:

The main line from St. Louis to Texarkana, what you might call the eastern Illinois line down the east side of the river, over this Paragould leased track that has been referred to, of the Cotton Belt; or, from the northwest over the White River branch down to the connection of the main line at Diaz, close to New Port—just north of Newport; and west over the Little Rock & Fort Smith line; starting in at the state line at Van Buren and then going from Little Rock towards Louisiana, it would go to Alexandria, passing through Pine Bluff; then from Memphis, coming in from the east via Bald Knob and then south to Little Rock. Then, of course, the reverse movement, taking in those routes from the north, east or west, as the case may be:

Now, if you have any data to show the potential capacity of the locomotives on those routes I wish you would put it in evidence.

A. We have prepared an exhibit showing the tonnage capacity of engines on the St. Louis, Iron Mountain & Southern Railway Company in freight service, as shown by official timecards, issued for the government of employes only, effective during the last half of 1909, compared on the various operating districts over which so-called

"trans-state" trains would pass through the state of Arkansas.

3208 As various classes of engines with varying tonnage ratings are in service on the different districts, the maximum rating on each district has been used below as the basis of comparison.

The paper last referred to is marked "Defendant's Exhibit W, Chas. S. Ludlam, 6/1/1910, M. J. C." and is in the words and figures as follows, to wit:

For Exhibit "W", see Volume 9, page 5833.

Q. What would be the direct effect of this upon these socalled "trans-state" trains moving through the state like they are on a bridge, Mr. Ludlam?

A. It shows that such a train would be an impossibility.

Q. Suppose there was a train of trans-state freight made up at St. Louis, going south; that would have one of two routes to take: one on the main line via Poplar Bluff and those hills north of that—I have forgotten the name—and the other using this leased line that they lease from the Cotton Belt track:

What would be the effect of the operation of a train of that kind? A. The official time-table, number 16, of the St. Louis, Iron Mountain & Southern, taking effect July 4, 1909, shows that any one of the engines, from number 1 to number 100, could haul 1900 tons from St. Louis to De Soto, but that any one of those same engines could only haul 900 tons from De Soto to Piedmont. That is, the train would have to be more than divided in two when it got to De Soto.

When it got to Piedmont it could haul from Piedmont to Hoxie 2300 tons. In order to run through from St. Louis to Hoxie the train would have to have 1,000 tons less than the capacity of the engine between St. Louis and De Soto, and it would have to have 1400 tons less than the capacity of the engine between Piedmont and Hoxie. That is, the engine would be working about one-half its capacity a large part of the distance—one-half or less than one-

half of its capacity,

3210 Q. Of course that would necessarily mean the breaking up of the train?

A. Yes, sir.

Q. Now, supposing instead of taking that route they took this other low grade route: I don't care about going into ratings on that, but just call attention to this, that it is a low grade line:

That would be more economical to operate, I presume, than this

other?

A. If it is a low grade line it undoubtedly would be.

Q. And this trans-state matter either must take the expensive operation on the main line, or else go to the expense of hiring another track on another railroad, to take care of it?

A. In order to operate more economically—in order to handle it

cheaper, yes, sir.

Q. Where does the benefit to the state of Arkansas come in on that sort of economical management of these trans-state trains through Missouri and over these leased lines, or out here in Missouri and eastern Arkansas?

A. Arkansas would not be interested in the economical operation

of trans-state freight.

Q. Here is a statement of Mr. McPherson's on page 357:

"Exhibit 5 shows that for the six months ending December 31,

1907, the average length of haul of all intrastate freight was 70 miles, while the average length of haul of all interstate freight in

Arkansas was 224 miles.

3211 This means that each shipment of interstate freight moves on an average of 224 miles with but one terminal expense, either that of forwarding or delivering. Each intrastate shipment moves on an average of but 70 miles and incurs two terminal costs for that distance."

He goes into that at considerable length and makes a calculation of eight times the expenses of the intrastate, for one of the inter-

state.

He does that on the use of equipment, the station handlings, and I have forgotten how many other things he runs that proposition into:

In your exhibits, have you take- care of the division of cost of those

station handlings, and if so, how have you done so?

A. I presume in his testimony, Mr. McPherson uses the word "terminal" in the sense of the station expense, as I am sure neither Mr. McPherson nor any other railroad man, would state that each shipment of interstate freight moves on an average of 224 miles, with but one terminal; because it is well known that each shipment of interstate has a terminal expense at each division terminal, which, as I understand it, in the state of Arkansas is approximately 100 miles.

Therefore, if he uses the word "terminal" in the sense I assume he does, as meaning the station expense, we have provided for that by apportioning the station expenses actually incurred in the state of Arkansas upon the basis of the tons of freight handled in the

state of Arkansas.

3212 Q. So the ton miles that he used to illustrate it, would have no bearing if you have taken care of it in the actual tonnage?

A. It would not apply in any sense.

Q. You have taken care of it directly between state and interstate?

A. Yes, sir.

Q. So his eight times one, if that be correct on a ton mile division, has been taken care of absolutely?

A. Yes, in my judgment it has.

Q. Then he uses that in regard to the equipment, maintenance of equipment, too, I think?

A Yes, sir.

Q. Have you taken care of the eight times one, as he puts it

there, in connection with that?

A. Having made provision for the increased expense of maintenance of freight cars on account of the more frequent starting and stopping of local trains, on account of the terminal handlings, we think we have fully covered that feature of the question.

Q. You have done that between the local and through, of course?

A. Yes, sir.

Q. Separating each one and taking care of all the extra expense

growing out of the point he raises there, wherever it is applicable?

A. Yes, sir; we think so.

3213 Q. There is some criticism made of your station handlings, allowing two for intrastate and one for interstate when there is some part of the business trans-state which does not have as much station handling as the other:

I wish you would explain why you adopted the plan stated in

your exhibit.

A. We have charged the state tonnage with two station handlings, assuming that each ton of state freight would be handled twice, at its originating and terminating points.

We have charged each ton of interstate freight with one handling, assuming that each ton of interstate freight would be handled

once.

3214

While we recognize the fact that there is certain of the interstate freight that is trans-state and therefore would not have specific station handlings within the state, we think that there is a large part of the interstate business that would have two handlings.

That would apply specifically in cases of freight into and out of Memphis, the expenses of the Memphis station being included as an

expense of the state of Arkansas.

It would also include the handling of interstate freight into and

out of Fort Smith.

It would also include the interchange made within the state of Arkansas of trans-state freight with other roads, which would constitute a large proportion of the trans-state business of the Iron Mountain road in the state of Arkansas.

Q. Taking all those elements into consideration, you felt

like you had made sufficient allowance for that?

A. Yes, taking all those elements into consideration we thought that a very fair apportionment would be to charge the interstate freight with one handling on the average within the state of Arkansas, and the state freight with two handlings.

Q. Mr. McPherson has also run his eight to one proposition into what you might designate as the "lost car movement": Have you

taken care of that in your apportionment of expenses?

A. Not altogether, no sir. We have apportioned the maintenance of freight cars between the through trains and the local trains, and then apportioned that expense on the basis of the business done by the two classes of trains. But there is an element of fact in the statement that there would be more lost time of equipment on the short haul business than there would be on the long haul business, but in my judgment, not to anything like the extent that Mr. Mc-Pherson states. Furthermore, I have it would be largely offset by the tremendous amount of empty car mileage made for the purpose of handling interstate business, which appertains in a far greater measure to interstate or long haul business, than it would to the short haul or state business.

Q. So you do not think there is an element there that needs to be taken care of as an item of extra expense charged

to the state?

3215

A. No, I think it would be so small as to be-to use a word I have seen used in this case a good many times—negligible.

3216 Cross-examination of Mr. Chas. S. Ludlam.

By Mr. MOORE:

Q. Have you examined the books and accounts of the railroads engaged in this litigation?

I have examined some of the accounts, but not A. No, sir.

the books.

Q. What was the character of your employment with the Atlantic

& Pacific Railroad at Albuquerque, New Mexico?

A. I was employed in the Auditor's office in the bookkeeping department.

Q. You were very young then, of course?A. Yes, sir.Q. What was the length of that Pecos Valley Railroad at the

time you were employed down there?

A. When I first went to Eddy, New Mexico, it was ninety miles, and during my connection with the road, it was extended to a distance of 175 miles.

Q. How long were you engaged in connection with that road?

A. About two years and a half.

Q. Then you went to New York?

3217 A. Yes, sir.

Q. Have you adopted and put into force the methods taken in Exhibit 5 in this case by Mr. Wharton, in connection with railroads whose accounts you have revised at any time?

A. No, sir.

Q. Do you think it would be practicable to keep the accounts of a

railroad in that manner?

A. If that information was desired, I think it would be practicable to devise a system of accounting that would give practically the same information.

Q. How about the expense of it?

A. It would increase the expense of the accounting department.

Q. Quite considerably wouldn't it?

A. Somewhat, I don't think very materially.

Q. The state has found it very expensive to make the investigation that has been made in these cases, for the purpose of preparing the exhibits referred to?

A. Yes, sir.

Q. It required a long time?

A. Yes, sir.

Q. And a great deal of clerical labor?

A. Yes, sir, but of course, if the books were laid out to segregate the information in this order, at the time it was compiled, it would be less expensive than to attempt to go back and segregate it after the records had been completed.

Q. You have spoken, in saying that it was possible to 3218 keep the books in this way by a railroad and arrange the accounts in that way, you have spoken now with reference to the expense that could be allocated, but there is a part of the expense you have got to assume in this case as you have done in making the exhibits. You know what I refer to. You could not devise a practical system of bookkeeping for a railroad, based upon assumptions that way, that you would regard as a proper method of keeping accounts?

A. Yes, I think that an equitable division or apportionment of those expenses that could not be specifically allocated, could be worked

out that would be reliable for all practical purposes.

Q. For instance, the allowance of extra expense on account of two terminal handlings against one, and that sort of thing, involving an assumption of what the increase would be on that account, would have to be treated and carried in the books as an assumption, wouldn't it?

A. That could be pretty accurately located.

Q. Is it practical, do you think, to adopt the cost system of accounting for railroads, such as is used in ordinary industries?

A. It is entirely possible; whether it is practical or not would de-

pend upon the necessity for such action.

Q. Referring to your statement that the operating man is in a general way the last man who is able to figure out what his costs are, isn't it a fact that the economies of operation are more

closely under the observation of operating men, and that they have better opportunities of studying and determining what

they are, than men in other departments?

A. Information as to the results of the operating department are constantly furnished by the operating department to the accounting department, and the operating man keeps in touch, through the

accounting department, with his costs.

Q. That is all very true, but as I refer now to the cost of a given operation, the cost of switching an engine, the cost of switching service say, the man on the ground, whose time and experience is devoted to the conduct of the affairs of that account, would be in a better position to determine what the cost in detail was, than the accounting official at headquarters, wouldn't he?

A. No, sir.

Q. You think not?

A. No, sir, I think if the president of a railroad wanted to know what his switching cost him during the previous year, he would make inquiry of the accounting department, not of the operating department.

Q. Of course, he will do that, because there is a record in which and by which it is kept, but doesn't the accounting department base its records upon information obtained from the operating department?

A. No, sir, they base their records upon the records of the work which is actually done; of course, to the extent that the operating man reports his transactions, the accounting department is dependent upon his statements. I mean by that, regarding the conductors and operating men; the accounting department depends upon his statements as to how far he runs, what cars he

picks up, and what cars he sets out, but the details of those items as applied to cost and expenses are worked out by the accounting de-

partment.

Q. Has the accounting department any information about the movement of trains, handling of cars, cars picked up, cars set out, and cars that are carried to the machine shops for repairs, has it any information at all in regard to that, except as it is obtained from the operating department?

A. Only as reported by the operating department.

Q. Is that reported to the accounting department?

A. That depends upon the system in vogue at the different com-

panies' offices.

Q. There is necessarily involved in the handling of trains, a great multitude of small details, perhaps the greater part of the expense is made up of matters that in themselves taken separately, would be minor expenses, and it is the aggregate of them that creates a large outlay. Now, it would be impracticable for a mass of details like that to be reported to the auditing department as the basis of accounts, would it not?

A. There is not a dollar received by a railroad or a dollar paid out by a railroad, that does not pass through the account-

ing department's records.

Q. I thoroughly understand that; that is bound to be the case, but a dollar or five dollars may be paid out at the yard or in the machine shop at Little Rock, to operatives who may be engaged during the time these repairs are made, in various and different employments. Now, he is paid in gross. Does the accounting department know in detail the various and different kinds of work, for which the payment is made?

A. Yes, sir, the distribution of the pay roll would show that.

Q. Who makes that distribution of the pay roll?

A. That varies on different roads; the system varies; on some roads it is made in the accounting department; in other roads, it is made in the operating department, subject to the verification of the accounting department, under the direction of the accounting department.

Q. How can the accounting department make a distribution of matters of that sort, which are carried on at a distance usually from

where the accounts are kept?

A. The time book shows the class of work on which the employee was engaged, and the accounting department distributes the charge accordingly.

Q. Doesn't the operating man control the pay roll for the various

kinds of service that is performed?

A. As to the employment of the individual, absolutely.

Q. Doesn't he know the conditions under which the work in his department is done, better than another man who is not on the ground and without the same means of observation?

A. He knows naturally what his man are doing, and what they

should do, but after that has been determined, the accounting department decides how the expenses incurred as found by such observation,

shall be charged.

Q. You stated yesterday, that you could remember when the general manager would instruct the auditor how to charge certain expenses; now, isn't that controlled by the rules fixed by the Interstate Commerce Commission, as far as interstate roads are concerned?

A. Very largely. The Interstate Commerce Commission holds the accounting department responsible for distributing the charges.

Q. It has come about now that the operating man cannot doctor his reports as you suggested had been done formerly?

A. No, sir, he cannot.

Q. You were engaged for nearly three years in the Missouri case?

A. Off and on.

Q. You said also you made a study of the unusual expense of the road under the division made between state and interstate expense in that case?

A. Yes, sir. Q. Were the Iron Mountain and the Cotton Belt roads parties to that proceeding, do you remember? 3223

A. I do not remember.

Q. The Missouri Pacific was, wasn't it? A. Yes, sir.

Q. Did you go into that case on the same lines as you have in this

case? A. Our employment was the same. Q. Did you divide the cost of operation as between state and inter-

state business there in the same way that you have in this case?

A. No, sir. Q. Why not? A. We think we have gone further in this case than we did in the

Missouri case.

Q. What was your method of division in that case?

A. The ton mile basis with certain additions for extra cost of handling state business.

Q. You testified in that case, didn't you?
A. Yes, sir.

Q. Did you not testify in that case that in the judgment of the accountants engaged in the case, the ton mile basis was the only way in which the difference in cost could be ascertained?

A. Can you tell me what page of the record that is?

- Q. It is page- 1189-90; did you not state that the only way to ascertain the actual cost was the ton mile basis; I will read you the question:
- "Q. The ton mile is not the question, the revenue is not 3224 the question; the thing to be desired would be to ascertain the actual cost if you could ascertain it in any way."

And your answer was:

"A. In our judgment, the ton mile basis is the only way it could be ascertained.

A. Yes, sir, I so testified. It should be understood in that connection, that in that case we did not have the division of expense between local and through trains; that testimony was applicable to the facts in that case.

Q. You had two or three years to get that information, more

time than you did in this work?

A. We were engaged on that case approximately for two and a half or three years, but we didn't have those statistics. I might say in that connection, we have gone, we think, further than we did in the Missouri case,

Q. You stated, I believe, that you did not have the information in that case. How did you compile, obtain the data upon which you base the exhibits that you filed in this case by Mr. Wharton?

A. What data do you refer to?
Q. I mean all the data which is the foundation of Exhibit "I." A. Well, the statistics were worked up from the records in the various departments of the two railroads.

3225

Q. What statistics is that Exhibit "I" based on?
A. The statistics shown. The statistics shown on Exhibit "I." are the ton miles of freight intrastate, divided between carload and less than carload, and the ton miles of freight interstate, divided between carload and less than carload.

Q. What I meant to ask you was, what records you got the statis-

tical information from, as contained in the Exhibit?

A. Various records; it was not all obtained from one record. Q. Take on the St. Louis, Iron Mountain & Southern Railway, what record is the principal foundation of that exhibit, and the division which you have attempted to make between local and through train costs, in the exhibits that accompany that statement?

A. I presume you refer to the car miles by local and through trains, and if that is the case, we took the car miles, total car miles

in the State of Arkansas, as shown by the Company.

Q. Where did you obtain that? Do the wheel reports enter into it?

A. I couldn't tell you where we got the total figures. Mr. Hamilton obtained those, he can explain that; I know we worked up the mileage of local trains from wheel reports and deducted that from the total mileage.

Q. You got one of your factors from the wheel reports?

A. Yes, sir.

Q. Then where did you get the information upon which 3226 you base your comparison between the month of October and the six months, the last six months in 1907?

A. I don't think we have made any comparison; we have taken

the month of October-

Q. Did you not obtain your percentages for the purpose of dividing state and interstate business from the record of the operations of the Iron Mountain road for October, 1907, and the wheel reports covering that period?

A. Yes, sir.

Q. And you make that the basis of the division, the apportion-

ment for the six months business, do you not?

A. Yes, sir. I started to explain that in answer to the second question back, to state that we did not make a comparison between October and the six months period, but we used the figures for the month of October to apportion the six months figures on.

Q. When did you work up the October statistics?

A. Since we have been working on this case. I couldn't tell you the exact date.

Q. Was it from the summer of 1909 until winter of 1909 and

1910?

A. I think probably it was.

Q. Some year and a half or two years after the period covered by those records, was it?

A. Yes, sir.

Q. The same was true on the Cotton Belt also?

A. A year and a half or two years, yes, sir.

3227 Q. You were asked this question at page 2015-6, in the

Missouri case:

"Certain exhibits have been offered here by the railway company as Exhibits 14-A and Exhibit 15, which show the tonnage of both state and interstate freight carried by certain through trains on certain dates in December, and also certain local trains on certain dates in December, 1906; now this information, I understand that testimony was obtained from the testimony of men who went along with those trains and set out with the train. Was that your understanding?"

You say "Yes."

"Q. Is there any other practicable way of getting that information accurately as to what makes up the tonnage of particular trains, whether they be local trains or through trains?"

To which you answer: "No, sir, there is no other method that is

practicable."

"Q. Is it practicable to ascertain that information from the books and records of the company subsequent to the operation of the trains and the handling of them?

"A. No, sir, in my opinion it is not practical."

Now, I want to ask you if those statements are not equally applicable to the same kind of information on the Iron Mountain Railroad?

A. No, sir.

Q. What is the difference?

A. That was my testimony in the Chicago, Burlington & Quincy Railroad Co. case, and all the waybills prior to September of our examination had been destroyed.

Q. This testimony was in the Missouri Pacific case?

A. No, sir, this was in the Chicago, Burlington & Quincy Railroad case.

Q. Wasn't the exhibit furnished by the Missouri Pacific, the one you were talking about?

A. No, sir, it says the Chicago, Burlington & Quincy Railroad case.

Q. I will ask you if you are mistaken about its being another road, and if those exhibits did relate to the Missouri Pacific?

A. Exhibit 14 relates to the Missouri Pacific, and I presume 14-A

does.

Q. Why was that statement that I have just read from your testimony in that case, not equally applicable to the statement upon which these exhibits are based?

A. I should assume that I was referring to the less than carload

business.

Q. What difference would that make; you say, it is not practical to get information of that kind except by having a man go along to make observations. That was your testimony.

A. It was my testimony that it would not be practical.

Q. And in this case you are attempting to obtain the tonnage by a wholly different manner, by records two or three years 3229 after the business was done, in the case now in hand?

A. Yes, sir we have traced out the train; we handled the carload business by going back to the wheel reports; in the Missouri Pacific case which you referred to, we did not think that was practical on account of the immense amount of labor involved in the operation; here, however, we have performed that labor.

Q. You didn't make that qualification in your testimony then,

you just simply said:

"It is not practicable to ascertain that information from the books and records of the trains," and that the only way you could get the information was to put a man on the trains?

A. I was referring there probably to all the business, carload and

less than carload, both.

Q. Are you not referring here in these exhibits to all business?

A. No, sir, we have only specifically allocated the carload business, and we have assumed, we think, very much more of the expense of state business than it should bear, as we assumed that all state less than carload business was moved by local trains.

Q. What do you base that assumption on?

A. On the assumption that a large part of the state less than carload business would be moved on local trains?

Q. Did you have any evidence of that fact?

A. General knowledge.

3230 Q. So to get right at the root of the whole thing, you have acted, not on knowledge, not on actual known condi-

tions, but upon assumptions of facts?

A. We have actual knowledge of known conditions, that a large part of the state less than carload business moves on local trains, but I am willing to admit that we think we have burdened the state business by assuming that all of it moved on local trains.

Q. I am speaking about the claim that has been made for these exhibits, that they represent actual facts, but right in the inception,

it is based largely on assumption, isn't it?

A. It is based on an assumption to a certain extent. I would not

say largely, because to start with, the less than carload business rep-

resents only a small proportion of the total business.

Q. You have criticized rather severely, the testimony of Mr. Frank Nay of the Rock Island Road, referring to the statement made toward the conclusion of Mr. Nay's testimony, that "after making the basic approximation of the operating expenses for intrastate freight or passenger traffic, the figures thus arrived at may be increased in the proper proportion to represent the excess of the cost of transporting intrastate traffic over the cost of transporting interstate traffic."

3231 You also quoted a similar statement from Mr. McPherson's testimony, and in presenting your views which you say those conclusions to which I have just called your attention, as testified by Mr. Nay and Mr. McPherson, demonstrated the fallacy of their position, you say Mr. Nay has built up a snow man, and in the body of his testimony, and in the conclusion he destroys it.

Now, did you not do the same thing in the theory propounded by you and your associates, Haskins & Sells, in the Missouri case, in which you and Mr. Taliaferro testified, that the ton mile was a proper unit to divide the expenses in apportioning the expense of operation between state and interstate, and that any extra cost could be added after that division had been made as between the two; didn't you make the assumption there that you criticised so severely in this case?

A. No, sir, I don't think so.

Q. How did you arrive at the extra expense? You and Mr. Taliaferro both testified there would be an extra expense in the conduct of state traffic over interstate traffic in that case? How did you propose to give the state business credit for that on that division, in your testimony in that case?

A. A specific allowance for those items where we knew the specific cost was greater in the case of one business than in the case of an-

other business, was made.

3232 Q. What is the difference between making an allowance of 50% on account of some extra expense in dividing the expense of maintenance of way on a car mile basis between local and through trains, for the purpose of taking care of the extra expense growing out of the supposed extra service for which allowance is made, and the increase of the amount that may be apportioned on the ton mile basis or the revenue basis, as a unit, after you have made the apportionment?

Tell me what the difference is. You have done that all through

this case.

A. In the case of the addition made by us to the proportion of the expense of maintenance of way applicable to the local trains, we have made additions to the local car mileage on account of the increased switching and the more frequent stops of local trains, which we think is perfectly consistent with the statement of facts as developed in this case by the testimony, and is well known from railroad practice in general, whereas in the revenue theory, Mr. Nay says that all those things are taken into consideration in fixing the rates,

Assuming his premise is well founded, then there is no excuse, after you reach a conclusion on that basis which is done by taking elements of increased cost into consideration, in adding to the result thus obtained.

3233 One of two things must be wrong, either the rates do not take those elements into consideration or else you cannot

add anything.

We say specifically that the car mile does not take those elements into consideration, and, therefore, there are certain conditions you must make allowance for, but Mr. Nay says all those things, on the revenue basis, are taken into consideration; and then, after having explained very elaborately, that they are taken into consideration and the rates are based upon that premise, then he says, when you get them proportioned, having gotten it, you must add something to it, because it is not correct.

Q. You refer now to the assumption that has been made in this case that a division of expense between state and interstate business on a straight revenue basis, would involve an extra allowance to state business because of the adjustment of the rates as between those two

classes of service?

A. No, sir, I do not assume that, but Mr. Nay does in his essay. Q. Mr. Nay's testimony, if it touched upon that, you say must have been made with reference to the feature which was developed in the record?

A. I don't say that it must, but he states that it is.

Q. Assuming that he does state that, Mr. Nay's statement 3234 that any extra expense involved in the conduct of local business could be added to the amount ascertained after the division or apportionment had been made, was based was it not, upon the testimony that had been introduced and which indicated that a larger difference existed than would be accounted for by a division on the basis of straight revenue?

A. I can't tell you what it was based upon. In my judgment, it

was not based on accounting principles.

Q. The statistics filed in this case by the Iron Mountain and the Cotton Belt is practically the same for the purpose of my question—show that the revenue per ton per mile on state freight was about

13 mills, and on interstate, about half of that.

If we should assume a difference in the rate which would in itself involve an allowance for extra expense in the conduct of the state over the interstate business, and assume further that the testimony in the case showed that the expense of conducting state business was four times as great, instead of double as great, would there have been any thing strange, unusual or illogical, in Mr. Nay's saying, after you had apportioned the expense on a straight revenue basis, if there was still an additional extra amount of expense incident to the conducting of the state business, that that could be provided for by an allowance of whatever the evidence showed would account for the extra expense?

3235 A. The assumption would be founded upon the premise that you suggest. If you assume to start with, that Mr. 86—813

Nay knew nothing about the railroad business, and second, that he knew nothing about the rates, and that he did not know that the state rates had no such relation to the interstate rates as you suggest, or that the interstate rates had no such relation to the intra-state rates, if Mr. Nay was writing purely as an essayist who knew nothing whatever about his facts,-knew nothing whatever about the variation in the rates or variation in the costs, that premise would be alright, but Mr. Nay is not writing that way.

Q. There is nothing illogical in the assumption within itself. which differs from your understanding of the facts in the case?

A. As an ethical question; if the state rates were exactly double the interstate rates, and the cost of doing state business was exactly four times the cost of doing interstate business, then there would be nothing objectionable in determining the expenses on the percentage which they bore to the revenue, and in the case of state expenses, doubling them when so ascertained.

Q. In giving your views as to the demerits of the revenue unit of dividing expenses referred to between state and interstate traffic.

you say you never heard of the revenue theory being advanced as a basis of determining expenses except in the Missouri case and Arkansas case.

Haven't you made a study and given investigation to these methods of dividing expenses for sometime back?

A. Dividing what expenses?

Q. Dividing the expenses of operation as between state and interstate business?

A. Not except in the case of the Missouri rate case and the Arkansas rate case.

Q. You were engaged in the Missouri case from 1906 to the conclusion of that case?

A. Yes, sir.
Q. During that period didn't you give it investigation?

A. Yes, sir.

Q. Did you never hear of the case of Ames v. Missouri Pacific Railroad, 169 U. S., Chicago, Milwaukee & St. Paul v. Tompkins, 176 U. S.; same road v. Keys, 91 Fed. The Buel case before the Wisconsin Commission, and the Oklahoma case pending at St. Paul in which your firm is interested, haven't you heard of those cases?

A. Incidentally, but not as an accounting proposition. We were not identified with any of those cases, and I made no study of the question, nor did I go into the bases of divisions in those cases. The Oklahoma case which you refer to, my firm has had no connection with, except to make a certain affidavit as to the State of

Arkansas.

Q. You say you think the division of the value of the property in proportion to the gross earnings is wrong. Haven't you made the division upon that basis in your figures in this case?

A. I wouldn't say we have made the division—we have used the companies' bases in apportioning the property.

Q. That is the basis you have been acting upon?
A. That is the basis we have used in our exhibit.

Q. In that connection, you say the cost would more accurately represent the value of the property. Isn't it a fact that the cost of everything that enters into the expense of operation of a railroad is fluctuating constantly?

A. Not as between state and interstate, there is no fluctuation in my judgment; whatever affected the cost of one would affect the

cost of the other.

Q. That is the point I want to call your attention to. You say the revenue is not a good unit because of fluctuations of the rates. Is there such an abnormal fluctuation in the rates as would destroy the adjustment between state and interstate rates, unless it may be a condition growing out of such a thing as occurred in this suit, the enjoining of a body of rates put in by an official commission or something like that, but in the ordinary and orderly conduct of

the business of a railroad, do such constant fluctuations occur 3238 as would render rates an unstable and fluctuating quantity,

to such an extent as to destroy it as a factor?

A. Yes, sir, I think they would.

Q. Your attention was called, and you referred yourself in your testimony, to a difference connected with the changes that grew out of the order made by Judge Vandeventer granting the injunction in this case. Soon after that order was made different rates were put in voluntarily by the railroads—we call them voluntary rates—from those that had been in force under direction of the Commission previously on state business.

Now, there was a period during the change, when the interstate rates were not and could not be readjusted so as to correspond with

the new voluntary rates put in by the railroad companies.

Would any sane man take such a period as that as a representative period, for the purpose of ascertaining the relation of cost on the revenue theory between state and interstate business? Has that been done in this case, or would any sane man do it?

A. I think the distribution on the revenue basis must take into consideration all those fluctuations, whether violent, unusual or

abnormal.

Q. If you apply that under normal conditions and to a state of affairs normal and yet out of the ordinary, would it be true?

3239

A. My experience is that the rates are constantly fluctuated.

3239 A. My experience is that the rates are constantly fluctuating and changing, particularly the interstate rates of a railroad,—the interstate freight rates—not to the same degree probably as in the case you mentioned, but that is merely a forceful illustration of the disparity which exists.

Q. Can you give me any illustration that will sustain that impression, that the situation is anything like that, that occurred

during the year 1907? Can you point out any instances?

A. I would have to make a study of the business of the road for

the year 1907, to point out any specific instances.

Q. Isn't it a fact that commercial conditions and necessity throughout the country, requires a larger degree of stability in

railroad rates than your answer would indicate, when you say that interstate rates fluctuate to the extent that would interfere with the

application of the revenue as a unit of division?

A. No, sir, I don't think that is the cause—it is not only the fluctuation of the rates, but it is the fluctuation of the movement. Many interstate rates are made to govern large zones and the fluctuation in the movement would affect the revenue materially, whereas it would not affect the expense in any sense.

Q. Let me call your attention to the zone adjustment of the lumber rates, which Mr. Perkins testified was brought about some years ago by conditions which have abated very much,

and Mr. Bee testified that those conditions which caused the adjustment referred to both by him and Mr. Perkins, did not any longer exist, and yet the rate existed?

Is not that a pretty good illustration that the rates are not in the habit of fluctuating and jumping about to any great degree?

A. I don't think it is, because on the basis of the testimony as to that lumber zone, the curtailment of business in the northern end and the increaseed movement from the southern end, would cause a change in the revenue derived by the Iron Mountain on its haul through the State of Arkansas, just the same as a coal strike in one locality might cause a tremendous fluctuation in the revenue on coal, although there would be no specific change in the

Q. If it is true as Judge Wallace testified in this case, and as Mr. Hampton, who until recently was chairman of the State Railroad Commission of Arkansas, and as many other men connected with the traffic and freight departments of the railroads connected with this case have testified, that there is a relation between state and interstate rates and that the interstate rates are influenced by the state rates, would your assumption as to the extent of the fluctuations, if there are fluctuations — to such an extent as would destroy the revenue as a proper factor of division?

A. Yes, sir, I think there are constant fluctuations. Q. You think those gentlemen are mistaken then? 3241

A. Absolutely. I would like to state-

Q. You base your testimony upon a view which differs from the testimony of those gentlemen to whom I called your attention?

A. Yes, sir.

Q. Now, make any statement you wish to make.

Mr. HILL: You did not state in there what their testimony referred to. It did not refer to the cost of service, it referred to the way one state rate affected the interstate rate.

Mr. Moore: I am applying it to that,—the way the state rate affects the interstate rate; I did not say anything about the cost.

Mr. HILL: The way you have put that question, it would be assumed that there was a relation of cost.

WITNESS: I think that many individual cases could be picked out to support that testimony; but I think, taking the railroad movement as a whole, it would not hold good.

Mr. MOORE:

Q. What do you base that view on?

A. Those same gentlemen, for instance, testified that in 3242 fixing the rates, the casualty risk was considered, and lost space was considered, and that all of the elements that would enter into the increased cost were considered, and yet I find in the actual movement of railroad traffic, that that situation is not true. While it is true to a certain extent, in the great bulk of railroad movements, the actual conditions do not accord with their theories.

For instance, taking the St. Louis, Iron Mountain & Southern tariff #70, Texas Tariff #1 DD, which was issued by Mr. Cale, Agent, in effect during the last six months of 1907, from St. Louis to Texas common points, a map of which is already in evidence in

this case:

The Texas common points cover some 2600 stations, I think, in Texas, and represent a movement that may vary as much as 400 miles in the length of the haul, and I find that that tariff shows that from St. Louis to Texas common points, the rate on beer in glass is 48 cents per hundred pounds, with a minimum weight of 30,000 pounds, and that the same tariff gives the rate on bar iron of 55 cents, with a minimum weight of 36,000 lbs. Now, the casualty risk on beer in glass would certainly be very much higher than it would on bar iron, and yet beer in glass is hauled cheaper under that tariff, from St. Louis to Texas common points, than bar iron is hauled.

In addition to that, the beer rate provides for six thousand pounds of free carriage of ice, sawdust, straw, etc., during the months 3243 of June, July, August and September, and in the other months, three thousand pounds. In making that rate where they carry beer in glass for less than they do bar iron, they did not

consider either the lost space nor the casualty risk.

The same tariff quotes excelsior from St. Louis to Texas common points at 43 cents, with a minimum weight of 20,000 lbs., as compared with the rate already quoted of 55 cents for bar iron. They certainly did not consider the space required in the car, nor the casualty risk; excelsior would burn up very easily; bar iron, if you had a fire or wreck, would not be an entire loss at least.

The same tariff quotes potatoes. This is from St. Louis to Texas common points. The difference in every one of these hauls may exist of over four hundred miles; the tariff quotes potatoes at 54c., with minimum of 30,000 lbs. It quotes horse and mule shoes at 62c., with a minimum of 36,000 lbs. When I see tariffs actually made out on that basis, where the rate is actually less on potatoes than it is on horse and mule shoes, I know that consideration was not given to the casualty risk or the space required.

The same tariff shows poultry netting, 48c., with minimum weight of 30,000 lbs., and iron and steel chains at 70c., with minimum weight of 36,000 lbs., and when a traffic man testifies

3244 that they consider the space and the casualty risk, he is certainly not considering such items as these, and the tariffs upon which the great bulk of the business moves. Certainly no man

would claim that poultry netting required less space or that it had

a less casualty risk, than iron and steel chains.

The same tariff shows hollow building tile at 25¢, minimum 40,000 lbs.; also, pig iron at 33¢ with minimum of 50,000, and the tariff itself shows that they expect to load more pig iron in the car than they do hollow building tile, and yet the rate on hollow building tile is less than it is on pig iron.

The same tariff shows iron pipe coils for refrigerating machines at $42\frac{1}{2}\phi$, as compared with bar iron already quoted at 55ϕ . The lesser rate is on the hollow and bulky stuff, and the higher rate

is for the more compact stuff.

These rates apply to 2600 points in Texas from St. Louis, with a difference of over 400 miles in the possible length of the haul.

Here is sheet iron pipe up to 30 inches in diameter, quoted at 55¢, as compared with sheet iron flat at 62¢. When a tariff man testifies that they consider the weight and bulk and those things, does he imagine for a moment that they can put more sheet iron into a car when it is rolled into pipe thirty inches in diameter than they do when it is lies flat?

Here is another one: Matches, from anywhere in St. Louis to any Texas common point at 711/26; the rate on wooden

3245 to any Texas common point at 71½; the rate on wooden tooth picks on the same tariff is 80¢; the casualty risk on matches, it seems to me, would be higher than it would on wooden tooth picks, notwithstanding what the learned gentlemen say, who have made these rates and studied these elements and say they consider them when they can, but on the great bulk of railroad movement they don't apply them.

Here is wooden kegs, 80¢, with a minimum of 14,000 lbs., as compared with saddlery and hardware in packages, 90¢, with minimum of 30,000 lbs. The light and very bulky stuff, that is wooden kegs, is

quoted lower than the heavier and compact stuff.

Here is pickles and preserves in glass 58¢ minimum of 30,000 lbs., as compared again with saddlery and hardware at 90¢. Anybody, I imagine, to use the term you used a few minutes ago, that was sane, would not imagine that pickles and preserves in glass, would take less space or be less liable to damage than hardware. And that rate is from St. Louis to 2600 points in Texas.

Here again, comparing pickles and preserves in glass at 58¢ with iron and steel chain at 70¢, with a minimum of 30,000 lbs. for pickles and preserves in glass, and 36,000 lbs. for iron and steel chain; anybody knows that pickles and preserves in glasses are fragile and the casualty risk is greater and that they do not weigh

as much, and yet the rate is lower. Mr. Nay knows that, when he says that the expenses bear a direct relation to the revenue. What relation has the expense to the revenue when they haul pickles and preserves in glass at a lower rate than they haul iron and steel chain, when they may have to haul pickles and preserves in glass for 58¢ 400 miles further than they haul iron and steel chain for 70¢, I might add some questions about sanity.

Another rate on baskets, talked about a great deal in this case, the rate from St. Louis to Texas common points, is 80¢; on pig lead

it is 75¢; they may haul pig lead 400 miles less than they haul the baskets, and yet the variation in rate is 5 cents; there has been a lot of talk about baskets, and the rate taking those things into consideration; what is the consideration of a man worth that says the variation between baskets and pig lead should be only five cents, and in the tariff, the minimum on baskets is 14,000 lbs., and the minimum on pig lead is 36,000 lbs., and furthermore, under this tariff, baskets may be hauled four hundred miles further than pig lead.

Q. On the contrary, pig lead may be hauled four hundred miles

further than baskets?

A. Yes, sir, in either case the revenue has no relation to the expense; here are a few samples; from St. Louis to Atlanta, Texas, those are flat rates; apples 41¢ per cwt.; this is the same

tariff, No. 70, effective during the last six months of 1907—apples 41 cents, with minimum of 24,000 lbs., as compared with wire rope,60¢ with minimum of 36,000 lbs. That is, the rate on apples is only about 3rds what it is on wire rope; surely, nobody would say that the casualty risk would be greater on wire rope than it would on apples, and the minimum fixed by the railroad itself shows that the density of wire rope is greater, because the minimum on apples is 24,000 lbs. and the minimum on wire rope is 36,000.

Again, beer in glass, from St. Louis to Atlanta, Texas, is 42 cents, with a minimum of 30,000 lbs. The rate on crow bars is 62 cents, with a minimum of 36,000 lbs. Certainly beer in glass has a greater casualty risk than crow bars, and it would seem to me that the density might enter into that question; they could hardly put as much weight into beer in glass as they could into crow bars, and the mini-

mum shows they don't expect to.

Again, lamp chimneys are quoted at 61 cents, as campared with crow bars at 62; whoever made that rate certainly did not give consideration to the casualty risk; any man must know that crow bars would not be more likely to get broken than lamp chimneys.

Here are a few more rates, St. Louis to Alamo, Texas, common brick is 17½ cents, and pig iron 32½; the common brick rate carries the valuation of five dollars per thousand brick, which would in-

dicate that the railreads themselves anticipate such a hazard of breakage and hazard of carrying brick, but they do not expect any on pig iron which is practically indestructible.

Pickles in glass, 39¢, and shot in double sacks 52¢, with minimum

on pickles and glass of 24,000 and shot of 36,000 lbs.

Here is a flat rate from St. Louis to Marshall, Texas, quite a long haul. Everything the Iron Mountain hauled would come through Arkansas as I understand it; there is a flat rate of 80¢, with minimum of 14,000 lbs. on any one of the following articles, either in straight carload or in mixed carload lots: Baskets, shot, paper bags, blacking, blueing, bottles, brushes, lamp chimneys, coffee mills, crayons, galvanized iron tubs and galvanized iron pails; ink, lamps, lead, cotton mops, oil cans, oil tanks, paper, pipes—smoking pipes—ropes and twine.

Now, these are just a few samples: you can take almost any waybills of a railroad, take one waybill after another and compare it and you will find the same conditions existing, and when gentlemen sit on the stand and say they consider casualty risk, and bulk, and all those items, I know they do theoretically, but they don't in the practical application of their rates, and it is in the face of those violent fluctuations, in one case they carry baskets and shot at the same price, and in another case, they carry lamp chimneys at less than crow bars—and that traffic fluctuates and necessarily fluctuates;

when I give these examples, I am not criticizing the rates, I ado not mean they are not practical and possibly the best rates possible, and that they are not compelled by competitive conditions and proper conditions too, but I do say, there can be no relation between cost and revenue when those rates exist, and it seems to me it must be apparent to anybody, and when Mr. Nay, knowing that, and being familiar with those rates, and it being his duty to check them and keep in touch with them, says you must determine your cost or how much more it costs to move state business than interstate business on the total revenue, I say he builds up a snow man which I think he knows is a snow man, and in the last few

This follows Mr. Bourland, Thursday morning:

lines of his essay, he proceeds to knock him down.

3250 Q. Are those carload or less than carload?

A. Those are all carload rates, on which, of course, the bulk of the company's business is handled. That is, I mean to say that the bulk of the company's business is handled in carload lots.

Q. You have been talking about Texas common point rates?

A. I first used the Texas common points and then I have given some specific illustrations of special points in Texas, illustrating in a general sense the trans-state movements in the state of Arkansas. Q. What is the tariff that you have been reading from, Mr.

Ludlam?

A. The St. Louis Iron Mountain & Southern, No. 70, issued by G. W. Cole, Agent; in effect during the last six months of 1907.

It is known as "Texas Tariff 1-D. D."

Q. Does the ton mile theory of division of expense take into consideration the density, value, weight, liability to injuries—that is, casualty risk, and those elements mentioned in the statement you have just made?

A. In my judgment, to a far greater extent than the revenue, because the basis of the ton mile consists of two factors, first, the weight of the freight, and second, the distance which it is hauled; and the revenue as shown by this one tariff, if you want only one illustration,

does not take into consideration at all the distance which the 3251 freight is carried, because, under this tariff, freight can move

distances varying over 400 miles in the aggregate.

Q. If that is correct, that those rates apply to distances of 400 miles, it would follow, would it not, that those rates might be higher on the side of the zone that was nearest the point at which the shipment originated, than on the farther side, more remote, and also that the reasonableness of the rate with reference to the length of the haul might be more at the intermediate points with reference to dis-

tance, more closely adapted to the length of haul than at the extreme

points that I have referred to.

A. The shorter the haul the greater the revenue would be per ton per mile. I do not question in any sense the reasonableness of the

rate. I am simply stating that there is a variation.

Q. Now, referring to the ton mile as a unit, assume that you have a revenue divided between the total tons hauled, of five mills per mile. The length of haul of some of the commodities may be 25 miles and the length of haul of others may be 1000 miles:

In what way can you say that the ton mile theory has any refer-

ence to the length of the haul in that case?

A. Because the ton mile is predicated absolutely on the weight of the shipment and the length of the haul. Whether

it be baskests or crow bars or lamp chimneys or beer in glass, it actually costs more to haul it 1100 miles than it does to haul it 700 miles. The ton mile basis takes that feature into consideration. The revenue basis as shown very forcibly by this one tariff I have referred to, does not take that into consideration.

Q. Does the ton mile basis take the casualty risk of the commo-

dities into consideration?

A. No, sir, and the casualty risk on the St. Louis, Iron Mountain and Southern amounts to about three per cent of the total freight

operating expenses.

I might say in that connection—referring back to some of the testimony that has been given by traffic men in this case—that they have nearly all stated that the casualty risk is considered—in fact, one gentleman stated that the casualty risk was the most important element considered in rate making—it must be apparent on its face to a person who stops and gives the matter consideration, that any man who understood his business, would not make an item which only represented three per cent of the total freight expenses of a company, the prime factor in fixing the revenue to be derived by that company. It cannot be so. It is illogical.

Q. What percentage of the business of the Iron Mountain road

moved under that tariff that you have been reading from?

A. I have not figured that out, Mr. Moore. I cannot tell you,

but certainly a very large volume of it.

3253 Q. You simply assume that as an inference, rather than state it as the result of any information or knowledge you have?

A. No, sir, I said that from general knowledge that there would be a large amount of freight moving from St. Louis to Texas common points.

Q. Would you say 15%, 50%, 10% or 75%?

A. Of what?

Q. Of the business of the Iron Mountain that moves under that tariff.

A. I would not want to make an estimate. I would not attempt to do it.

Q. It would be impossible for you to make an estimate that you

could rely upon, without any more information than you have, would it not, Mr. Ludlam?

A. It would be only an opinion.

Q. If coal and lumber is 50% of the total business of that road, the items that you refer to would be rather a small per cent, would they not?

they not?

A. Yes, sir, but if relatively the same difference existed in the coal and lumber rate, that exists in the commodities shown by this tariff,

it would not in any way affect the illustration?

Q. You assume, then, that the ton mile theory upon which you have proceeded, does take into consideration those elements which you say are not considered in fixing the rates that you have called attention to in the tariff which you have read?

3254 A. I say the ton mile theory takes into consideration the two most essential elements, the weight of the commodity

moving and the distance that it moved.

Q. Now, tell me how can you state that an average ton mile rate applied to the total volume—not to those items alone to which you refer, but to the total volume of the business of the railroad—can take into consideration the difference in the weight of a carload of feathers or a carload of lead or iron?

You put it all at five mills, we will say, per ton per mile: how does that involve in any way or give any consideration whatever to the difference in weight in those commodities to which I have called

your attention?

A. As between state and interstate it makes no difference because the carload of feathers is as apt to move as frequently in state business as in interstate business; or a carload of coal is as apt to move in

state business as frequently as in interstate business.

So far as taking the ton mile as a whole and considering it in that connection, I would say that it does not make specific allowance for the difference between the carload of feathers and the carload of iron. But on the average those things equalize themselves.

Q. How does it do that in specific cases? You say it does not do

it generally, how does it do it in specific cases?

3255 A. I said it did not do it in specific cases, but it did do it generally.

Q. How can it do that? Generalities are made up of details.

A. Yes, sir, because on the average they will move so much light freight and so much heavy freight.

Q. The total movement represents varying lengths of haul, from the shortest to the longest haul that is carried by a railroad?

A. That is absolutely accounted for in the ton mile.

Q. Explain to me how you account for it in the ton mile when you get the aggregate of the miles and multiply it by the tons?

I believe that is the way you arrive at the ton mile basis. How

can it take into consideration the length of the haul?

A. Because the ton mile is made up of the weight of the shipment and the miles that that shipment moves. It takes into consideration absolutely the miles made.

Q. On the Cotton Belt road, it takes five states shipments to make

the average haul of an interstate shipment as shown by the statistics in this case:

How is it possible to say that the ton mile theory takes into consideration that difference as between the state and interstate average

haul?

A. The flat ton mile would not take that into considera-3256 tion and I have never prepared any figures, either in this case or in the Missouri case, that did not make allowance for that difference. Necessarily those allowances are shown by-

Q. Tell me where you have made allowances in the exhibit you have filed in this case for the difference in the state haul and the

interstate haul as shown in these statistics?

A. In our apportionment of the expenses to the local and through trains and also in our apportionment of the station expenses.

Q. Point out an instance now, please?

A. In our apportionment of the "Maintenance of way and structure expenses" we have added 50% to engine miles made by trains, attaching to local trains for station switching; and that same principle of attempting to allocate special expenses applicable to the local trains, where there is such special expense, is carried throughout our exhibits.

Q. You have covered the difference in the average length of haul where the interstate is five times as great as the state, by an

allowance of 50%?

A. The allowance of 50% in this particular case to the local train and then the apportionment to the local train of the state business handled by the local train would fully take care of it, in our judgment.

Q. Where did you get that factor of 50%? 3257

A. That is purely arbitrary. We think that it is excessive.

Q. Why did you adopt it if you think it is excessive?

A. We wanted to be fair in stating the maximum cost of the state business.

Q. Fair rather than accurate, do you mean?

A. Where we could not be exactly accurate, where the exact amount could not be definitely determined, we tried to be liberal.

Q. How many movements of state freight in view of the difference of the length of haul between state and interstate, would it require to make the equivalent of an interstate haul, with reference to the handling of the commodities moved on the state and interstate haul?

A. It would take about three movements of state freight on the St. Louis Iron Mountain & Southern to equal in distance the ton

mile of the interstate.

Q. How would it be on the Cotton Belt?

A. It would take about five on the Cotton Belt.

Q. You applied the 50% allowance to both roads alike, did you not?

A. To determine the cost of the local trains we have applied the same percentages. Of course, the use of the local trains is predicated on the actual service they have performed.

3258 Q. After you ascertained the difference in the expense of operating local and through trains and obtained the tonnage, etc., you applied then the ton mile theory for the purpose of

dividing the cost as between state and interstate freight?

A. We divided the expenses of the local trains on the volume of business handled by the local trains, which was determined by the ton miles, and the expense of the through trains were apportioned on the same basis. In other words, the expense of the two classes of trains were divided on the basis of the business which they did.

Q. And the basis of the entire division, when you get it down to its ultimate result, as between state and interstate, is that 50% allow-

ance you made on the basis of extra switching?

A. No, that is only one element.

Q. What other allowance did you make there, speaking of maintenance of way and structures?

A. Maintenance of way and structures——Q. That is what we are speaking about.

A. I assumed you were speaking of the total expenses of the local train.

So far as the apportionment of the "Maintenance of way and structure expense" is concerned, between the local and through trains, the only actual allowance made was to add 50% to the local engine miles for station switching.

3259 Q. Mr. Ludlam, if that is fair to the Iron Mountain, would you say that is also fair to the Cotton Belt, in view

of the difference of length of haul on those two lines?

A. In our judgment, it is entirely fair to determine the cost of the two classes of trains, and in the apportionment of expense of those two trains, subsequently made, we take care of the question of whether the haul of state business was greater or less on the Cotton Belt as compared with the Iron Mountain.

Q. The object was to ultimately ascertain the difference of ex-

pense of moving state and interstate traffic?

A. Yes, sir.

Q. So the division you made on the ton mile basis, between state and interstate traffic, is based upon the differences that enter into the cost of operating local and through trains: that is true, is it not?

A. No, sir, not the expense of the state and interstate. That is

the result, not the distribution.

Q. Well, we will speak of it as the result if you prefer that term: the method that you have adopted for distributing the expenses between those two classes of traffic, is it not all based, and is not the foundation of it, the differences you make between the expense of operating local and through trains?

A. The foundation of it is the basis of the cost of the two classes

of service.

3260 Q. You disregarded in that one instance—using that to illustrate, I shall not go more into detail—any respect of the length of haul that is shown in the evidence in this case to exist between the Iron Mountain and Cotton Belt, did you not?

A. No, sir, that is one of the especial elements taken into con-

sideration of distributing the two elements of cost and of the two classes of trains, after they are determined.

Q. Now, to go back to the cost of operation, as a stable factor,

which you say is the case-

A. May I say there, that I said stable as between state and interstate: a fluctuation in the cost of material or a fluctuation in the wages of employés would apply equally to state or interstate.

Q. Will not a fluctuation in the rates apply to state and interstate if it is true, as stated by many witnesses on the stand, that there is

a relation between state and interstate rates?

I am not asking you now what you think about relation, but if

it is true, would not the same statement apply to that also?

A. If there was a constant and stable relation between the state and interstate rates that would be true. I mean true as to some basis of apportionment, not necessarily an apportionment on the revenue basis, because even if the rates and the relation were

stable, the relation of expense to revenue might still be en-3261 tirely out of proportion between the state and the interstate. Q. You criticize a statement made by Mr. McPherson on the

stand (Page 351, Vol. 1), where he said:
"The revenue, therefore, expresses volume, character, risk and

distance, rather than quantity.'

Is it not true that Mr. McPherson in making that statement was comparing the fact that revenue as a unit of division expresses those matters that he enumerated-value, character, risk and distance, rather than quantity; in comparing it with that unit with the ton mile as a unit and for the purpose of distinguishing between a unit which would take all those matters into consideration, and one which considered alone the matter of quantity, as he assumed the ton mile theory?

Don't you know that it was in that sense that he made that com-

parison?

A. I think he made that comparison in relation to the ton mile, but I think that the statement that quantity was not considered in making rates to the same extent that those other items are, is entirely misleading, and particularly when he stated that the "revenue, therefore, expresses value, character, risk and distance;" how does the revenue in this tariff I have referred to, as an illustration, represent the risk when it quotes beer in glass at 48¢ and bar iron at 55¢, and how does it consider distance when one of those shipments may move 400 miles further than another shipment of the

same commodity and same weight and same class. 3262

Q. That is not answering the question I asked you, Mr.

Ludlam. I asked you in connection with your statement by way of criticism of that statement of Mr. McPherson, that you never heard of a railroad rate that did not consider quantity, if upon examining that you would not find that when Mr. McPherson made that statement he did not mean to say that the revenue did not consider quantity, but did not confine it to that to the exclusion of those other elements as in his view the ton mile theory did.

A. I would not attempt to say what Mr. McPherson meant to say.

Q. To his statement that it costs more to transport commodities in small quantities than in large quantities, you said that you were unable to understand what he meant in making that statement:

Is it not obvious that what he meant was that it cost less, if you want to put it that way, per ton or per mile, or any other way you might measure the relation of cost-it costs less to transport commodities in large volume than it would in small volume?

Was not that what he meant and is not that obvious from his

statement, and is it not true?

A. It was not obvious to me and that was the attention I attemped to call in my answer to his testimony; first, that he 3263 considered a great many other elements before he did

quantity, and yet, not considering quantity, he goes on to state that it costs more to transport commodities in small quantities than it does in larger quantities.

It seemed to me his testimony was contradictory.

Q. Is not that true and is it not in accordance with the universal rule, that a large volume of business transacted on the wholesale system can be conducted more cheaply with reference to the unit than a small retail business?

A. I think it is, yes, sir.

Q. Do you not understand that that is the sense in which Mr. McPherson in using his statement was speaking-

A. I think it might be interpreted that way, but that was not

the way I read it.

Q. Without meaning that there is any intentional unfairness, is it not a fact that your criticism was rather unfair to his testimony?

A. I did not mean to have it so. I meant to draw attention to the fact that in my judgment, he attempted to belittle the relative importance of the quantity in supporting the revenue theory and then he immediately contradicted himself.

I agree with Mr. McPherson entirely, if it was his intention to state that commodities can be handled in large quantities at less expense per unit than they can in small quantities, but I

3264 don't agree with him that the revenue therefore, expresses value, character, risk and distance, rather than quantity.

Q. Referring to a statement you made that in a general way the records kept by the railroads of the average cost of moving tonnage, would give an idea roughly of the average cost of moving freight on the line of the road:

I want to ask you if similar records to those that are kept with reference to the ton per mile on freight on commodities are also

kept with reference to the character of the passenger?

A. The railroad companies keep records as to the revenue per

ton per mile and as to the revenue per passenger per mile.

Q. In making up the exhibits filed by Mr. Wharton in this case, have you taken into account or made any allowance for the difference in the loading of cars?

A. In what way, Mr. Moore?

Q. The statistics in this case show that on one of these roads the

average loading of loaded cars in local trains is 14.7 tons and on through trains it is 19.2 tons; that is on the Iron Mountain.

On the Cotton Belt it is 12.43 on the local trains and 17.29 on

the through trains:

Have you made any allowance in your division of train expenses for that difference?

3265

A. Yes, sir.
Q. In what way?
A. In having determined as accurately as possible the cost of the two classes of trains and then apportion that cost between the business that they actually handle.

Q. How did you determine that cost as between trains?

A. That is explained fully in our exhibit——

Q. It is on the car mile basis, is it not?

A. No, sir.

Q. Take "Maintenance of equipment" or "Maintenance of Way:" is it not on the car mile or engine reduced to car mileage?

A. Certain items are on the car mile basis. Q. Take "Maintenance of way and structures"?

A. That is on the car mile basis with the allowance as stated.
Q. Take "Maintenance of locomotives"?

A. That is on the car mile basis.

Q. How about freight cars?

A. That is on the car mile basis with certain allowances.

Q. Have you made any allowance there for this difference in loading between local and through trains, the cars in local and through trains?

A. Yes, sir, because we have apportioned the expense of the local trains to the cars that the local trains actually handled.

3266 Q. I understand that, but you seem to have apportioned it on a basis of the car miles, and the car miles, as I understand it, do not involve the contents of the car and the weight of the load carried by the car; where is that taken into consideration in your division?

A. In the distribution of the expenses of the local train and the through train as actually determined over the contents of the cars

the train carried.

Q. Have you determined it as between the local and through trains; have you considered the difference in your division of train expenses as between the local and through trains?

A. Yes, having ascertained the cost of the local train we think

that takes in all the elements entering into the local train.

Q. How does it take in the element of weight when you determine it on the car miles, without regard to the contents of the car?

A. The statistics that we gave at the start showing that the average loading of revenue freight was different in the local trains from the loading of the through trains show that that was taken into consideration.

Q. I understand it is shown in your statistics, and that is where I got the figures: but what I am asking you is to point out to me where you take into consideration in dividing the train expense between local and through trains—I mean the contents, I am 3267 not talking of the car or car miles—where did you give consideration in your formulas to the weight of the contents of the cars that make up the two classes of trains?

If it is there I want you to point it out; that is what I have been

trying to ascertain.

A. Division No. 7 of Exhibit K, page 7, explains how the division was made between the two classes of trains, after the expense of the two classes of trains had been determined, as previously explained in this exhibit. That division was made on the basis of the freight actually handled by the two classes of trains during the month of October, 1907, in the case of the Iron Mountain.

Q. Now, Mr. Ludlam, you have divided the train expense—except two or three items, such as traffic expenses, station expenses,

and perhaps one other-on the basis of car miles:

In this method of dividing train costs as between state and interstate ton miles, you simply ascertained what per cent of the total ton mileage of intrastate business is carried on local trains and what per cent of the total interstate business is carried on local trains.

Then you determine what per cent of the intrastate and inter-

state business, respectively, is carried on the through trains.

Tell me, do you make any distinction in that apportionment or in arriving at the per cents of state and interstate business 3268 carried on those trains? Do you do it in any way with reference to the loading of the cars that make up those two classes of trains?

A. Necessarily the ton miles include that element.

Q. I want to ask you if the 39.10 per cent of intrastate business carried on local trains is not a statement in the aggregate and without any reference whatever to the loading or contents of the

cars in which this traffic is carried.

A. 39.10 per cent relates to the proportion of the total freight handled by local trains which are state business and it assumes—and I think this is what you mean to ask—that the cars handled by the local trains, whether they be state or interstate, were equally loaded.

That is to say, if the local train carried, we will say two car loads of stone, one going across the borders of the State and the other stopping within the State, that they were both loaded to the same

capacity.

Q. It assumes that?

A. Yes, sir.

Q. Whether on local or through trains?
A. It assumes that on each class of train.
Q. Whether through train or local train.

Now, if it is a fact that the cars in the through train are loaded more heavily than the cars in the local train, do you not in

3269 that apportionment disregard that distinction?

A. No, sir, it does not affect the difference between the loading of the cars in the through train and the loading of the cars in the local train, but if there was a distinction between the loading

of the state cars in the local train and the interstate cars in the local train, and a difference between the loading of the state cars in the through train, and the interstate cars in the through train, it would ignore that difference, but it would not ignore the difference between the loading of the cars in the local train and the loading of the cars in the through train.

Q. Can you give me, when we assemble after recess, the cost per ton per mile of state and interstate freight as shown by the exhibits

filed in this case by Mr. Wharton?

A. I will look and see if we have that worked up, Mr.

3270 Moore.

Q. If there are ten cars in a local train and ten cars in a through train, under your method of division-car mileage-the total expense would be divided equally without regard to the contents of these cars, between the local and through trains, would they not?

A. The ten cars carried on the through train would be applied to the through train, and the ten cars carried on the local train would be applied to the local train, our division of expense being made between the cost of the local train and the cost of the through train. That would not be applied to the whole factor, as your question would imply.

Q. But the total expense of those two trains, in your method of division, would be divided equally between the two, would they

not?

A. No, sir. The total expense of each class of trains is divided over the business handled by each class of train.

Q. I am not speaking about the business, but the division of train

expense to local and through trains:

If you have two trains and one of them is a local train and one of them is a through train, each one containing ten cars, would not

the total train expense as between those cars, under your method of division, be divided between them on the basis of 3271

the number of cars in each train?

A. Certainly, the expenses are apportioned on car mileage basis. Q. I mean those expenses that are apportioned on a car mile basis: would that not be the case?

A. No, sir, because we make certain allowances for the car mileage

made on local trains.

Q. I understand that, but after you have made your allowance and in that way obtained the number of car miles then you would divide the expense in proportion to the number of car miles in each train, would you not?

A. With what we allow to equalize.

Q. On the first sheet of Exhibit K, the total number of car miles is 8,470,636; of that 1,438,038 car miles is for the local and 7,032,-598 car miles for the through trains:

You have obtained the per cents of the car mileage on each class of trains with reference to the total car mileage and apportioned the

expense on that basis, have you not?

A. After adding 50 per cent to the engine mileage of local trains to provide for the switching.

Q. Does that not apply to both state and interstate freight on the local train?

3272 A. Oh, yes, the local train carries both state and inter-

Q. Now, for the present purpose we will eliminate that and we will assume that you make the allowance; what I want to get at is, after making that allowance that you spoke of, how have you divided the total mileage between local and through trains, as you have stated?

A. On a car mileage basis.

Q. Then you divide the expense of maintenance of way and structures on the ratio of the car mileage in each class of train to the total car mileage: is that correct?

A. Yes, after making specific allowance for station switching of

local trains.

Q. And that is done, is it not, without regard to what the contents of the car may be, or whether some of them or all of them are

empty, or some empty and some loaded?

A. Yes, sir.

Q. We will say then that on one of those trains—to illustrate I will take a local train-five of the cars contain ten tons each of state freight and five of them contain twenty tons each of interstate freight:

That is one hundred and fifty tons, of which fifty tons are state freight carried on five of the cars, and one hundred tons are inter-

state freight carried on five cars:

When you come to apply your ton mile theory of division 3273to that, how do you apportion that expense?

A. The ton mile theory of division to the total expense of

the local-

Q. Of that train, yes. I have described the train: now apply your division of the expense on the ton mile basis, telling what per cent you would apply to the state business and what proportion you would apply to the interstate business.

A. Assuming that the local train had fifty ton miles of state freight, and one hundred ton miles of interstate freight, we would apportion one third of the cost of the local train to the state business

and two thirds of the cost to the interstate business.

Q. You would do it on the ratio that each ton of freight on the train bore to the total tonnage of the train, would you not?

A. Total ton miles, yes, sir.

Q. Mr. Ludlam, in that case now you are charging to the interstate freight on the five cars two thirds of the train expenses, are you not?

A. On the basis of the case that you mentioned.

Q. In other words, you depart from your car mile theory thereyou have ascertained the train expense on the basis of the car miles—you depart from that and you distribute that expense 3274as between state and interstate business on the ton mile basis,

thereby charging the greater part of the expense to the interstate freights carried on that train: that is the case, is it not?

A. We do not depart from it in our exhibit. We depart from it in the hypothesis which you suggested.

Q. Do you not do it in your exhibit?

A. No, sir. Our exhibit does not show anywhere that on the

Q. If that should happen to be the relation of the loading as between the state and the interstate tonnage carried on the local trains, it would result in that in your exhibit, would it not?

A. If that should happen to be, yes sir.

Q. Does it not follow, Mr. Ludlam, that these train expenses are divided, the state and interstate business, without regard to the load-

ing of the cars?

A. No, sir, because it is divided on the actual ton mileage of the two classes of freight. If you assume that it takes two cars to carry the same ton miles of state freight that one car can carry of interstate freight, then that would be the case, but we make no such assumption.

Q. Does your exhibit in division 7, your method of dividing train

expenses, assume that each car carries the same load?

A. That each car on the local train carries the same load and that each car on the through train carries the same

3275 load.

Q. You say in explanation of your method of dividing train costs, that during the month of October, 1907, 39.10 percent of all the intrastate ton miles, and 8.70 percent of all interstate ton miles of freight were handled on local trains—that is shown on page 7 of Exhibit K:

When you get down to the division you charge to the intrastate business 39.10 percent of the ton miles, do you not, of all local busi-

ness?

A. Yes, of the business handled by local train.

Q. That is what I mean. And you charge to interstate business the corresponding percent that I mentioned above, 8.70 percent?

A. Yes, 8.70 percent.

Q. You assume in that that the cars in the local train all have the same loading, do you?

A. We assume in that that the cars of state freight and the cars of interstate freight handled by the local train are equally loaded.

Q. Is it not a fact that the interstate loading is heavier than the state loading?

A. I should say that the loading of the cars on the local train would be the same whether the freight was state or interstate.

In the case in Missouri, in a test that we made extending 3276 over quite a period of time, Missouri Pacific, we found that the state freight cars were considerably more heavily loaded

than the interstate cars.

Q. I know you did, but didn't that grow out of the fact that there was a very large movement of stone in local trains from nearby points into the City of St. Louis?

A. My recollection is that it grew out of that.

Q. Didn't that cover a short period?A. That does cover a short period.

Q. I wish you would think a moment, because I am informed that that is the case; refresh your memory and see if it did not grow out of the circumstances to which I have called your attention, that is, that there was a heavy shipment of stone from nearby points into this City.

A. No, sir, I do not recall that it did. In fact, I do not recall that

we analyzed freight to see what it did grow out of.

We simply took the freight as shown by the way bills and found that over a certain period of loading the cars used for state business was considerably heavier, as I recall it, about 20 percent heavier, than the cars handling interstate.

Q. The same basis of distribution is adopted as between state and interstate business, that is carried on through trains, is it not, Mr.

Ludlam?

3277 A. Yes, the same basis.
Q. Is it not true that these railroads run package cars at stated times, two or three times, or once a week, from St. Louis to points in Texas, and that those cars go out loaded to their capacity?

A. I cannot say in this case, but our examination of the through cars on the Missouri Pacific of package freight, showed that they went out loaded very lightly; an average examination covering several days showed that those through cars of package freight carried on an average of six tons, very light, as I recall it.

Q. I am speaking, of course, in my reference to package, to less

than car load freight.

A. Oh, yes.

Q. Did you answer with reference to that, Mr. Ludlam?

A. Yes, sir.

Q. Is not six tons heavy load for less than car load, is it not above

the average that you have used?

A. Exhibit "I" shows that the average leading of revenue freight, considering all cars during the month of October, 1907, on the St. Louis, Iron Mountain & Southern Railway, in Arkansas, amounted to 16.1 tons on the through trains which carried these through cars of package freight.

Q. Is that car load or less than car load?

A. That is everything carried on the through train. That would include these package cars that you speak of, which would tend to reduce the average. The average would naturally be higher if those lighter cars were not included.

Q. What percent of it is less than car load, four percent is it not,

four or four and one half percent?

A. 3.81 percent of the total ton miles handled by through trains is less than car load.

Q. How is it on the Cotton Belt? Have you that before you?

A. Yes, the less than car load ton miles handled by the through train amounted to 7.55 percent of the total ton miles handled by through trains.

Q. What is the average loading of through trains?

A. The average loading of revenue freight, considering all cars

on the St. Louis Southwestern Railway in the month of October, 1908 was 12.33 tons.

Q. Mr. Ludlam, are you familiar with the manner of distributing local or intrastate freight in the State of Arkansas, that which is

carried on these through trains?

A. Not specifically in the State of Arkansas, and I should say only in a general way, as that class of freight is generally handled by railroads.

Q. Is not that class of freight carried on local trains distributed in a different manner from interstate freight carried on

3279 them?

In other words, a local train will start out on a run of seventy five miles, we will say, and maybe there are eight stations:

Will not the state freight under the conditions which generally exist, begin to be distributed and peddled and loaded out of that

train earlier?

In other words, is not that likely to be delivered at more stations and to be distributed in a way that will cause a greater reduction of the weight of the state freight than in the interstate freight, as the

train moves along?

A. No, sir, I think not. The less than car load freight, both state and interstate, is handled by the same train and frequently in the same car. It is distributed along from station to station according to the points to which it is consigned, and I think that many of those less than car load lots are distributed equally with the state less than car load lots.

What I mean to say is, people buying at a distance are more apt to buy in small quantities than when they are buying at nearby places. A man living in Arkansas will send to New York for some specific commodity he may happen to want, and have it shipped to him by freight to some point in Arkansas; whereas, when he buys at a home market he is apt to buy in larger quantities.

Q. Is there not more local retail purchasing in the country done at nearby, small trade centers like we have in Arkansas, than there is at farther off, large distributing centers, like St. Louis and New York?

A. Yes, I think there is. Q. Would not that have a tendency to cause a more even distribution of local freights between all stations on the run of the local

trains than there would be of interstate freight?

A. No, because in my judgment the amount of less than car load freight purchased at all the outside points would be far greater than that purchased at the distributing points within Arkansas. I mean to say is, when you not only consider New York, but Chicago and St. Louis, and all the other points—for instance, the statistics show that (Exhibit 26) of all the freight handled by the St. Louis, Iron Mountain & Southern Railway in October, 1907, the trans-state less than car load amounted to 2.04 percent of the total ton miles and that the interstate less than car load amounted to 1.87 percent of the total ton miles; where as the state less than car load amounted to .38 percent of the total ton miles.

Q. Did not those percents very largely grow out of the relative volume of business between state and interstate?

3281 A. Somewhat; but if you reduce it to the actual number of tons, it shows that during the month of October there were 8,482 tons of trans-state, less-than-carload freight; that there were 20,573 tons of interstate, less-than-carload freight, and that there were only 8,031 tons of state, less-than-carload freight; that is to say, if you apply it only to the number of tons.

Q. Have you there what proportion of that interstate less-than-carload freight moved on through trains and what on local trains?

A. No, sir. In our statistics we assumed that all of the state less-than-carload freight moved on local trains.

Q. Have you any information as to the interstate, what proportion of that moved on local trains?

A. No, sir.

Q. Now, if your assumption that the loading of the cars is different, if the same should be correct, then would your basis of distribution on the ton mile be proper?

A. Our basis of distribution is not on the ton mile; it is based

on the local and through trains.

If your assumption that the loading of the state freight carried on the local train was different from the loading of the interstate freight carried on the local train, and your further assumption that the loading of the state freight carried on through trains and

3282 the loading of the interstate freight carried on the through trains, was not the same, was correct, our figures would be

changed to that extent.

Q. Are those assumptions or have you facts upon which you acted? Have you knowledge and information that your assumption is correct, or is it merely an assumption?

A. I don't think we worked out any statistics to prove that, but

there is no doubt in my mind but what that is the fact.

Q. It is in evidence in this case that there is a pretty heavy loss of time of the cars by the difference of the methods of operating local trains in the transportation of the business that is handled on them:

Did you take that into consideration in making your division between through and local trains, the loss of time by the cars in the

local trains?

A. Yes, we made specific allowance for switching and the other elements that go to make up that loss of time.

Q. Did you make any other allowances than those that you referred to, switching and things of that kind?

A. Nothing other than that which is shown in our report.

Q. Mr. McPherson states in his testimony in this case, at page 353, volume 1, as follows:

"The railway secures less efficiency from its cars used in 3283 intrastate freight traffic, in proportion to the relative tonnage, than in the interstate freight traffic; a greater investment in cars is necessary, and there is a larger cost for maintenance of cars

cars is necessary, and there is a larger cost for maintenance of cars in intrastate traffic than in interstate traffic, in proportion to the respective tonnage."

Was that element of difference between the two kinds of traffic taken into consideration in the preparation of your exhibits?

A. Yes, in the proportion to which those elements to which he refers would refer to the local trains and to the through trains.

Q. You made no other provision for it except that that is referred to as the allowance of which you spoke, switching allowance?

A. Switching and other allowances.

Q. What other allowances have you made?

A. They are shown in our report; allowances for extra stops of cars in local trains. On page 1, under (a) "Locomotives" we make an allowance for the extra maintenance expense of locomotives due to the service in the yard.

We also make an allowance for the switching done by road locomo-

tives on local trains and also an allowance for extra maintenance

on account of the switching which they do.

Under (b) repairs of freight cars, we make an extra allowance. for the maintenance of freight cars, due to more stopping and starting of cars of local trains than cars of through trains, and also an extra allowance for the terminal handling.

Those allowances having been made and apportioned to 3284 the local trains, all items of a supervisory and general character which are apportioned on the basis of the direct expenses, are

similarly affected.

Reverting to Mr. McPherson's testimony: he says that the railway secures less efficiency from its cars used in intrastate freight traffic in proportion to the relative tonnage, than in the interstate freight

Inasmuch as we have apportioned the state traffic and the interstate traffic to the local and through trains in the proportion in which it was handled, that extra expense, if there is one, is pro-

vided for.

Q. Now, Mr. Ludlam, referring to your detail statement: does not the first item you mention "locomotives" apply to the use of locomotives and not to cars; and the second, under the item of "Freight Cars" does not that apply rather to the wear and tear caused by stopping and starting at stations, rather than the loss to the use of the cars

A. But the loss of the use of the cars, as I understand it, comes from the fact that the cars are in the local trains rather than in the

through trains.

Q. What I have in mind and what was in Mr. McPherson's mind in the statement he made, as shown by the evidence of himself and others, is that owing to the schedules on which local trains are

running and the fact that they only work in daylight, and 3285 considerations of that sort, there is a much greater loss in the efficiency and use of the cars than there is in the cars used in the through trains.

It is that kind of loss that I have in mind and what I referred to when I asked you if you made any allowance in these formulas on

that account?

A. We have made allowance for the maintenance of the equip-

ment. If there is a loss in the time of the equipment that should be apportioned on the investment, or the proportion of the property of the company that is represented by its equipment, there would not be any allowance made for that unless you apportioned the property on the cost basis instead of the revenue basis; unless it is conceded that the revenue basis makes an allowance for the extra investment required in local equipment or in equipment for the short haul business, as pointed out by Mr. McPherson.

The question of interest on the investment would not enter into the operating expenses, but into the distribution of the property, and if you distributed the property, as I told Judge Hill yesterday, on a cost basis, that would be provided for. On a revenue basis it is not provided for unless the revenue provides for that lost motion.

Q. Is it provided for in your formula? It is not provided for in

any specific way in your formulas?

3286 A. No, it is not an operating expense; it is an interest on the investment.

Q. I am speaking now of the efficiency of the cars: I do not mean the loss and wearing out, but the efficiency of the cars in use?

A. The efficiency of the cars is represented by the maintenance. and operating expense, and in my judgment, is fully provided for by our formula as worked out in our exhibits. The investment loss is not provided for unless the distribution of property on a revenue basis takes care of that, and that is a matter of opinion; but if the property was distributed on a cost basis, then it would be provided for, in my judgment.

Q. You have stated since you have been on the stand, that it is a well recognized accounting principle that you arrive at the most correct results obtainable by apportioning indirect expenses which cannot be specifically allocated in the ratio of direct expenses which

can be specifically allocated:

Now, if that proposition is correct, and I do not doubt it, why does it not apply to the 90 per cent of expense of "Maintenance of Way and Structures" which is attributable to the elements and not to any use made of the tracks, buildings, fences, etc., by the engines and cars?

A. I don't think that is relative at all. I think that is an expense the total of which can be specifically apportioned to the operation of the trains. I would not call that an indirect expense in any sense. I think that is a direct expense absolutely, applicable to the operation of the train.

Q. Is not the damage by the elements an indirect expense, as

much so as "supervision and general expense"?

A. No, sir; I don't think so.

Q. Are they not all pretty largely the same character, not attributable to any particular part of operation, but to other causes?

A. No, sir; I don't think so.

If a tie rots from the weather and has to be taken out and a new tie put in the track, it is put in the track for the specific use of But you cannot apportion the superintendent's salary, if you please, or the president's salary, to any specific ties, because it applies to all ties and all items of expense. The tie I referred to

applies specifically to the running of trains.

Q. Superintendents and their assistants are just as essential to the operation of a railroad as any other element connected with it, are they not?

A. Yes, sir.

Q. Why is the expense charged on that account any more an indirect charge than that expense growing out of depreciation that is not produced by the running of trains, but is produced by natural

causes from the elements?

A. So far as the superintendence of maintenance of way and structures applies, that is all apportioned to the "Maintenance of Way and Structures" because the time of the superintendent is entirely given to them, but in the case, for instance, of the "Supervision and General" expense of the maintenance of equipment, you cannot say whether his expense is applicable to repairs of locomotives; repairs of freight cars; renewals of freight cars; or repairs of work equipment or renewal of work equipment. Items of that nature you cannot specifically locate as applicable to the specific items, and therefore it is distributed over all of the items in proportion that the items that you can locate, amount to.

Q. You cannot say that the deterioration resulting to structures, fences, telegraph poles and to the roadbed itself, from the elements, is chargeable to either state or interstate freight, can you: To the movement of interstate freight, I mean, or to the movement of in-

trastate freight?

A. No, sir; we don't attempt to.

Q. I know you do not.

Is it not an expense brought about by unavoidable causes, which ought to be met by the general revenues rather than by charging it to any feature or branch of operation, unless it was brought about or charged by that branch of operation?

A. No, sir; I would not say so. I would say that your total maintenance of way and structures should be charged to the 3289 purpose for which your way and structures are maintained.

It is not the question of what causes the expense that determines whether it is direct or indirect. It is a question of whether

you can allocate that expense to a specific purpose.

To revert to the tie again, it is not a question of whether a tie is worn out by the trains running over it or by the elements. It is there for a specific purpose and therefore it should be charged to the specific purpose to which its use applies.

However, in the case of the salary of the superintendent of maintenance of equipment, he is there to give his attention, as stated, either to repairs of locomotives, repairs of freight cars, or repairs of work equipment.

Q. Is not a station just as essential to the transportation of freights and their handling and distribution, as the right of way

is to the movement of the train?

A. Are you referring to the station building or station expenses?

Q. Station expenses.

A. Station expenses are applicable to the movement of freight, yes, sir.

Q. You do not apply that on the same basis that you do other

transportation expenses, do you?

A. No, sir; because we think that the station expense is more specifically applicable to the freight originating and terminating at the station to which the expense applies.

Q. Speaking of "station expenses," Mr. Ludlam, you have charged that to all classes of freight without any regard to the service that may be rendered to that part of the traffic which we denominated as "trans-state:"

That consists of the services of agents, clerks, cashiers, stenographers, and employés for handling freight about the station house,

as I undertand:

Why should any part of that be charged to trans-state traffic?

A. Why should any part of the station expenses-

Q. Which consist of such services as I have enumerated, as I understand it: why should any part of that be charged to the transstate business?

I am distinguishing that from "terminal" expense. I am speaking of "station" expenses, as distinguished from "terminal" ex-

penses.

A. We have assumed in that division that all of the interstate freight, both trans-state and what might be designated as second-class interstate, on the average uses one terminal in the state of Arkansas, as compared with the state freight using two terminals.

Of course there is some trans-state freight—since you refer specifically to that—into and out of Memphis, that would really have a

terminal expense.

3291 There is also a large amount of interstate—what you might call second-class interstate—in and out of Memphis and Fort Smith, that would have two terminal expenses in the state.

There is also, as I understand the testimony in this case, a large amount of grain, lumber and cotton, that would have two or more

terminal handlings in the state.

And there is a large amount of the straight trans-state freight that would be received from and delivered to connections in the state,

to which there would attach a considerable expense.

So we think, that taking all those things into consideration, a fair apportionment would be to assume that all interstate traffic, on the average, have one terminal, that is, one station expense, and that all state traffic has two station expenses. That is an assumption.

Q. Now, there is a very large volume—and that is recognized in the statistics in this case—of the business of these roads, that consists of trans-state traffic, and on the basis that you have mentioned you propose to charge, and you have charged all of that traffic with an equal proportion of station services, as you have the interstate traffic which begins or ends in the state of Arkansas?

A. I would hardly say an equal proportion, but on the average we have charged all interstate tonnage with one station handling,

recognizing that the so-called second-class of interstate would 3292 have more handlings than the trans-state, but that on the average it would all have one handling.

Q. What have you done in regard to terminal expenses, in regard. to that class of traffic, both the interstate and trans-state—all inter-

What allowance have you made for that? state traffic?

A. What terminal expense do you refer to? "Terminal" expenses have been used in so many connections in this case that I am a little mixed up.

Q. What I had in mind was "yard" expense, Mr. Ludlam?
A. Those have been divided between local and through trains on

the basis of the number of cars handled at terminals.

Q. Do you think that is a fair method of dividing that expense, as to the freight that was passing through those yards or division points?

A. Yes, sir.

Q. If a car of trans-state freight is set out at Hoxie or Traskwood. you would attach just as much terminal expense to that as you do to any other car?

A. Yes, sir.
Q. Do you believe that is a fair apportionment? A. On the average I think it would even up.

Q. Do you believe it is proper to impose the same charge, terminal charge, at intermediate stations, as you do at terminal stations that the movement originates at or-

A. After you have provided for the so-called station expense, I

believe that is proper.

Q. What has station expense to do with trans-state move-3293 ment?

A. The station expense would have a good deal to do with a trans-state movement originating or terminating in Memphis.

Q. That is a very small amount compared with the entire movement in Arkansas?

A. Station expenses would have a great deal to do with transstate freight delivered to or received from a connecting line in the state of Arkansas, of which there is a large volume of business.

Q. What is the comparative expense at intermediate terminals

and at originating terminals?

A. Why, if you separated the so-called "station" expense part of it, I should not say there was any.

Q. Not any difference?A. No, sir; on the average.

Q. I want to call your attention to your testimony in the Mis-

souri Rate Cases, at pages 1889 and 1890:

Your attention was called on that occasion to the statement you had made that there were two terminals in the case of purely state freight, and you thought in the haul of 222 miles or the haul of 237 miles, as the case might be, there would be more than two terminals; you explained that by saying that there would be a division point in the course of that haul, where there would have to be some attention paid to the freight:

3294 And then you were asked:

"Do you mean to say that at each of those division points it would be equivalent to a full terminal expense at the point of origin or the point of destination?"

And your answer was:

"A. No, sir, the intermediate terminal expense would be much less than the terminal expense at the point of origin or at the point of destination."

Mr. Taliaferro, the representative of Haskins & Sells, in the conducting of the state case in that litigation, at page 2212, testified:

"Q. What I want to know is, whether it is a fair result of your testimony to say this: that so far as the Missouri Pacific Railway is concerned, the terminal expense is three times as great where it is an originating or terminal expense, as it is where it is a mere passing through expense?

A. If you confine that to the business that the Company itself is taking through that terminal, I think that might be a fair rela-

tion between the two.

Q. That is the proportion you assume, that it costs three times as much to do that one-third of the business that you estimate terminated or originated at Kansas City?

A. Yes, sir."
Q. Now, in view of those statements in that case, can you maintain now that the intermediate terminal expense is about equal?

A. There would be two answers to that question: It would require

two facts to reply to the question:

In the first place, the expenses of the Kansas City Terminal were very much larger, probably, than the expenses at any terminal in

3295 Furthermore, the terminal expense in the Missouri Case includes the station force. Here the station force is separated.

The "station expenses" on the Iron Mountain in the state of Arkansas are shown to amount to \$233,626.94 as compared with "Yard

and terminal" expenses of \$236,262.07.

That is to say, that in this instance in the Arkansas Case, we have specifically apportioned one-half of the expenses that were considered as a whole in Kansas City.

Q. But are not the number of tons handled there a matter to be considered and would the unit of expense be such as you applied when you come to consider the volume of business and number of

tons handled at those large stations?

A. From my study of the situation at Kansas City—and we made rather an exhaustive study of that terminal expense-we reached the opinion that it would cost about three times as much per ton for a shipment originating or terminating at Kansas City as it would cost for a shipment passing through, but that included not only what is known in this case as the "Yard and terminal expense" but also what is known in this case as "station expenses."

In this case we have separated the "Station expense" from the

other expenses and apportioned the "Station expenses" specifically

to the tonnage handled.

Q. But in view of the fact that the character of the service that is embraced in the "Station expenses" is not applied or ren-3296 dered to trans-state business, how can you bring that into it

as an element?

A. I have already attempted to explain that we apportioned one station handling to all of the interstate freight on the assumption that while there was some trans-state freight that might not have the use of the station expenses, other than the telegraph and items of that nature, that there was so much of it that had not only one terminal handling but two terminal handlings, or more, that we thought that would be relatively a fair apportionment and it is an apportionment, an arbitrary apportionment, and we believe, ap-

proximately correct.

Q. Now, assuming, Mr. Ludlam, for the purpose of the question, that as a foundation for the basis which you say you acted upon in regard to station expense—that is to say, you assume that there was some interstate service there that was a little extra: would that justify you in charging a ton of trans-state freight the same amount of terminal service that you do a ton of other freight, when the terminal cost at intermediate stations is only 1-and that embraces all transstate business in Arkansas-of what it is at the originating stations? Do you not lose sight of the difference and do you not do an injustice to the trans-state when you make a division on such a basis as that?

A. Where do you get the figures?

Q. From your testimony in the Missouri Case.

A. That the intermediate expense is only 1 of the 3297 originating terminal expense?

Q. From the testimony I have just read to you?

A. But I told you the situation and figures are entirely different.

One has no relation to the other.

The President of the Pennsylvania Railroad Company stated some years ago in one of his reports in 1894, that on all freight that the Pennsylvania Railroad Company hauled from New York to Pittsburg and west of Pittsburg, they had on the average to haul it, I think, 90 miles west of Pittsburg, from Jersey City, to earn enough to pay the expense of getting it across the Hudson River, but the cost of getting it across the Hudson River would have no relation to the terminal expense in the state of Arkansas, and the expense of the road at Kansas City has no relation, particularly so as the items entering into what was known as "Terminal expenses" in Kansas City is separated here between "station expenses" and "Yard expenses"

I might say incidentally, Mr. Moore, that as I recall it the railroads in the Missouri Case attempted to apportion all the expense of the Kansas City terminal to the business originating and terminating at Kansas City and assumed that none of it appertained to the through business, their contention in that case being somewhat as it is in the state of Arkansas, that the through business had practically no expense connected with it. They did not apportion any of the

Kansas City terminal expense to it.

Q. Are you not mistaken in your statement that in the 3298 Missouri Case you did not separate "Yard service" and "Station service" and in that connection I will call your attention to Exhibit 35, which I understand is one prepared by Haskins & Sells and used in that case:

Please look at that and then state.

A. We did in this exhibit, but we did not-Q. What is that exhibit?

A. Exhibit No. 35.

Q. Was that an exhibit in the Missouri Case?

A. I think so, it is marked "Exhibit 35". I couldn't tell whether it was the Missouri Pacific or the C. B. & Q.

Q. Was it filed in that case, or the original of it?

exhibit that was filed by you in that case, is it not?

A. I presume it is; I don't know.

Q. It was prepared by Haskins & Sells? A. That exhibit was, undoubtedly.

Q. Mr. Ludlam, in the exhibit prepared by your firm, you have charged 19.33% of "Traffic expenses" to mail and express:

What connection is there between mail and express and traffic

expenses that would justify that charge?

A. We have apportioned the traffic expenses on the revenue basis,

Q. Why should any part of traffic expenses be charged to 3299 mail and express in a division that you attempted to make in detail?

A. Because we have not attempted to apportion the traffic expenses, but have accepted the railroad company's apportionment of

those expenses.

Q. I know that was based on a general division on the basis of the revenue, but now you are attempting to dissect it and deal with it in detail:

Doing that do you believe it is proper to charge any part of the

traffic expenses to mail and express?

A. We have not attempted to dissect or apportion the traffic expenses.

Q. In other words, you apply the revenue theory when it is profit.

A. No, we applied the revenue theory when we had no other basis that we thought was equitable or that we could give a correct result from an approximately correct result.

I said we applied the revenue theory. I meant we accepted the railroad's distribution when we had no basis that we thought would

give an approximately correct result.

I might say that the classification of operating evpenses as prescribed by the Interstate Commerce Commission, includes under its instructions as to what shall be charged to traffic expenses, the provision for the salary of the general express agent.

3300 Q. Is not that on railroads where the railroads maintain their own express and the express is not operated by a sepa-

rate company.

A. It would depend on whether a railroad had such an officer.

Q. Has the Iron Mountain or the Cotton Belt such an officer?

A. I don't know.

Q. Was not that a pertinent subject of inquiry before making a

charge for any part of that expense?

A. If we had made the charge we would have looked up the basis, but not having a basis to go on, we accepted the company's distribution.

In my judgment, traffic expenses are pretty hard to apportion. I should not think though, that the same per cent would apply to mail and express business as would apply to the freight business.

The salary of the general mail agent would also be charged to the

traffic expenses if there was one, I think.

Q. How is that divided in your accounts, Mr. Ludlam, the salary

of the general mail agent?

- A. If it is charged to the "Traffic expenses" I think it is—all the traffic expenses are divided by the railway on a revenue basis, and we have accepted their distribution.
 - Q. Do you know where that mail agent's salary is charged in the accounts of the Iron Mountain?

3301 A. No, sir, I do not.

Q. In the accounts filed in this case by the Iron Mountain?

A. I do not.

Q. I think, it is charged to the "General expenses"?

A. (After examining document) Yes, sir.

Q. Among the objections urged by you to the revenue as a proper basis of dividing expenses, I notice you state here it assumes that the efficiency of the car, we will say, delivering less than a carload of freight, was only one-half as great in the case of the interstate as in the case of the state because they would receive only one-half as much per ton per mile on the movement of the freight.

Q. Now, it is a fact that the statistics in this case show a difference in the length of haul, in one case the ratio being one to five and in

the other one to three.

3302

Does not that difference in length of haul have a very material effect on the matter to which you were referring in that testimony?

A. In my opinion it has a far more material effect on the revenue

per ton per mile than it has on the cost per ton per mile.

Q. One of your objections as I understand your testimony, is that it shows that only one-half of the effeciency of the car delivering one kind was only one-half as great in the interstate as it would be in the case of the state freight:

Is that not a very mild assumption? Is there not more

than that difference, really?

A. It is approximately one-half. That is a broad assertion to say a thing is worth what it will earn—that 15 tons of state freight will earn the same as 30 tons of interstate freight; it is apparent that a car carrying 30 tons of state freight is earning—

Q. What becomes of that objection to the revenue theory?

A. Because the rates are not universally uniform.

Q. What does the statement that you prepared for me at the noon

recess show to be the average cost per ton per mile, between state and interstate?

A. The average cost per ton per mile on the figures shown on our exhibits, for the six months ended December 31, 1907, amounted in the case of state freight on the Iron Mountain road, to 8.22 mills.

In the case of interstate freight on the Iron Mountain road, it

amounted to 4.38 mills.

In connection with state freight on the St. Louis Southwestern road, it amounted to 11.78 mills and in the case of the interstate freight on the St. Louis Southwestern road it amounted to 4.47 mills.

3303 Q. You testified you spent much time in the investigation of the questions that arose in the Missouri case in which your firm was engaged for about three years; didn't you testify in that case that the difference in the cost in the handling of state and interstate freight, would or might run from ten to twenty-five per cent?

A. I think so.

Q. You have found from investigation in this case, that your impression from which you testified in that case was mistaken?

A. No, sir, not at all; I have found that he cost was not the same in the State of Arkansas as I thought it was in the State of Missouri.

Q. Do you account for that difference in the two statements, one made here now as a result of these formulas, and the statement contained in your testimony in the Missouri case, on the difference in

the conditions in Arkansas and Missouri?

A. I should estimate, if I was making an estimate now in the State of Missouri, that the state freight would cost about 30% more than the interstate, rather than 25. My testimony in the Missouri case, as I recall it, was that it would not exceed 25%; I should raise it now to make it about 30%, and the difference between than 30% increased cost in the State of Missouri and the increased cost in the State of Arkansas, as shown by these exhibits, reduced

to a ton mile basis, in compliance with your request, would be accounted for in the difference in the traffic; you must remember that the Missouri Pacific has an immense state

traffic through the State of Missouri, between St. Louis and Kansas City and Kansas City and Joplin, and St. Louis and Joplin.

Q. Were you testifying in making that statement, with reference to any particular road engaged in the litigation or with regard to the conditions generally with reference to all parties engaged in it, in the testimony which I have just read. I understand there were 18 different roads engaged in that litigation; upon the face of it, this testimony is general and is not confined to any particular line of railroad.

A. My recollection is that was testified as to the Missouri Pacific or the C. B. & Q., that they were the figures I had before me at the

Q. Let me call your attention to the question:

"From your knowledge of the general situation of railroads"-

evidently referring, I imagine to the railroads engaged in the litigation—

"both as an operative and expert, what would you say was the increased expense if any, in handling the average ton of state freight as compared to the average ton of interstate freight?"

And your answer was what I called your attention to awhile ago; that seems to have been general in relation to the subject generally.

A. What page is that?

Q. Page 924.

 Λ . I was referring specifically to the handling of freight in the State of Missouri because that was the only state I had ever gone into that question in.

Q. But you were not referring to any specific railroad?

A. I am inclined to think I was referring to the three roads that were specifically examined in the State of Missouri, The Chicage, Burlington & Quincy, Missouri Pacific and Wabash, but I notice a little farther on, I stated that in many instances of short hauls, the two terminal expenses might exceed 25%; I say, "it is very hard to form a definite opinion for the reason that there are many conditions where there would be no increase in expense where the revenue would be greatly increased, and in many cases of short hauls, two terminal expenses might exceed 25%."

Q. What is the average haul in the State of Missouri, compared

with Arkansas on these two lines?

A. The average haul of state freight on the Missouri Pacific Railroad in the Missouri case, was 52 miles, and the average length of haul of interstate was 105 miles, making the haul of state freight about 1½ that of the interstate. On the Chicago, Burling-

about 1½ that of the interstate. On the Chicago, Burling-3306 ton & Quincy, the total haul of state business is 81 miles, and of all interstate business, 135 miles in the State of Mis-

souri.

Q. Speaking of a charge for depreciation, to which you referred in your examination in chief, where you stated that the railroad companies are required by the Interstate Commerce Commission to charge specifically against their operating expenses for depreciation on their equipment, I want to ask you if the order of the Interstate Commerce Commission does not relate alone to rolling stock?

A. Yes, sir.

Q. And do the regulations of the Interstate Commerce Commission not require that expense incurred for renewals shall not be charged to operating expenses—that is, shall not be charged to repair accounts?

A. You mean the replacements?

Q. Yes? A. Yes, sir.

Q. So your statement would only be applicable to repairs on rolling stock, your statement about the depreciation under those rules?

A. Yes, during the period covered by our report.

Q. Mr. Talliaferro, the representative of Haskins & Sells, in the Missouri cases, testified did he not, that you cannot separate the cost of running a passenger train between the cost of carrying the passengers and the cost of carrying mail, express, etc.—page 457 of the printed record?

A. I haven't that testimony here; will you read it to me in full?

Q. I will show it to you.

A. I believe he so testified.

Q. And yet that is what you have done in the formulas filed by Haskins & Sells in these cases, isn't it?

A. Yes, sir, we have records and data here that we did not have

in that case.

Q. That data was as easily accessible in that case as it was in this?

A. I presume it could have been worked out.

Q. You were engaged longer in that case than you were in this?

A. Yes, sir, but we profited in this case by our experience in the

other case.

Q. You read the rates from St. Louis to points in Texas from a tariff sheet to which you referred this forenoon. I want to ask you if you are acquainted with the relative values of the several commodities between which you made your comparison as to rates?

A. Only in a general way.

Q. For instance, you compared the rate of 43 cents on 3308 excelsior with the rate of 55 cents on bar iron, do you know the relative value of those articles?

A. Not the relative value of the two articles, but I know their

relative casualty risk in transporting them on a railroad.

Q. But does not the value enter very largely as a controlling factor in the rate?

A. It has been testified to here that it is an element, but in the case quoted there, it is an element where the value would conflict somewhat with the density.

Q. But is not bar iron of far greater value than excelsior?

A. I should assume so. I do not know in that case, which the traffic man was considering, whether the density or the value or casualty risk.

Q. Take beer in glass and bar iron, how would they compare in value. You quoted those rates at 48¢ for beer and glass, and bar

iron 55.

A. The casualty risk on the beer would, in my judgment, be much greater; the lost space on beer would also be greater. As to the actual commercial value of the two articles, I would not care to express an opinion.

Q. Take potatoes and horse shoes, there is a relation of value

there that might account for the rates you mentioned?

A. I think it would take a very good traffic man to explain just what would account for the difference.

Q. I am not going any further into this, but I want to call your attention to that for the purpose—I am questioning you about these

matters for the purpose of calling your attention to the rela-3309 tive values; is there not a difference there which is recog-

nized as a difference in rate making?

A. I do not think that had anything whatever to do with the making of that rate. I do not think it was considered. The traffic men have told us that casualty risk was considered; it was one of the first things; that the density was considered; that the value was considered; I would say, speaking generally, from the little knowledge I have of rates, that the main consideration in making rates, was the basis of what the traffic could pay.

Q. Yes, we understand that, but isn't the value the most important thing to be considered by a traffic man in making rates?

A. No, sir, the value would have no relation to the traffic man, except as to the casualty attached thereto might control.

Q. How about that element you have just mentioned?

A. That would have a great deal to do with it; the more valuable

the article, the more freight it can afford to pay.

Q. Now, there are some of these that are necessities of civilized life, preserves in glasses and things like that, what influence would the fact that those are necessaries have with the rate making man in fixing his rates?

A. I don't think I am qualified to state.

3310 MAURICE WRIGHT, being first duly produced, sworn and examined, deposed as follows:

Direct examination.

By Mr. HILL:

Q. Please state your name, age, residence and occupation?
A. 35 years, occupation, accountant, Webster Grove, Mo.

Q. What is your present occupation or employment?

A. I am employed as an accountant by the firm of Hamilton

Brown Shoe Co.

- Q. Before you were employed by Hamilton Brown Shoe Co. were you employed by the Arkansas Railroad Commission working on the accounts in this case?
 - A. Yes.
 - Q. Prior to that what were you engaged in?
 A. I was engaged in the railway service?

Q. For what road?

A. For the Missouri Pacific System.

Q. What was your service?

A. That of Travelling accountant.

Q. Commonly called travelling auditor?

A. Yes, sir.

Q. What was your territory as travelling auditor?

A. Just at the time I discontinued my service with the Iron Mountain Railway Co., my territory was from Hoxie to Texarkana and the Camden Branch.

Q. State generally how much experience you have had as travel-

ling auditor on the Iron Mountain in Arkansas?

A. I was employed seven years, and I interchanged territories so that, in that time, I travelled over the entire mileage of the Iron Mountain Railway Co. in Arkansas frequently.

Q. In the discharge of your duties?
A. Yes, sir.
Q. How long were you travelling accountant for the Iron Mountain - Arkansas?

A. Seven years.

- Q. What familiarity did that work give you with the movement of trains in Arkansas?
- A. My work as travelling accountant required that I use both freight and passenger trains in going from station to station. 1 frequently used freight trains both local and through, so that I gained considerable familiarity with the movement of freight trains.

Q. Are you familiar with the tracks, and side-tracks, and gener-

ally, the line of the Iron Mountain in Arkansas?

A. Yes, sir. Q. Are you familiar with the method in which they handle through and local freight trains?

Q. Pretty near lived on them for about seven years, didn't you?

3312 A. Yes.

Q. In the exhibits that have been filed by Mr. Wharton in this case, he has divided the maintenance of way and structures expense on freight traffic between local and through train service on the basis of the engine and car miles of each class during a given period, and in arriving at the number of engine and car miles, he has added 50% to the engine mileage for station switching.

I want to call your attention to that proposition, after he has added 50% to the engine mileage for local switching,—I will ask you if you are familiar with the station switching done by local trains in Arkansas, and were you familiar with that condition in

1907?

A. Yes, sir, I was familiar with that condition.

Q. I will ask your opinion, from your familiarity with it, as to the correctness of the 50% being added to the engine mileage on

this account?

A. I know of no method of determining accurately what mileage the local engine makes in station switching, but it is my opinion that is can be determined with reasonable accuracy and that 50% is high. I think that 40% would be more nearly correct.

Q. Have you made any calculations to verify your opinion on that

subject?

A. Yes, sir.

Q. I wish you would state the methods you have used in arriving at that and illustrate it with the different freight 3313 divisions with which you are familiar.

Q. In my work as travelling accountant, it was necessary that I check all the records of stations where we had agents. It was necessary in checking to check each waybill covering freight consigned from that station; also, to check each waybill covering freight consigned to that station. In doing that for a number of years, I became familiar with the average business handled at those stations. I also am familiar with the length of the side-tracks as they are known—passing tracks and unloading tracks. Also, the greater number of industries located on those tracks. Being thus familiar, I have worked out, taking as an average all the cars set out and picked up, or that there is a possibility of being set out and picked up, in the movement of the local freight each day. One division is that from Newport to Little Rock.

Q. Just take that in detail, and explain how you worked that out

and the result of it?

A. I will state, if there was more than one car to be set out on a siding, and they occupied positions in the train intermediate with cars destined to other stations, as many additional trips of the engine would be necessary as there were cars to be set out, although it would not be necessary that the engine trips be the entire length

of the siding; that is, it would not be necessary that the against trips should be more than 75 feet long;—what is

known in railroading as "making a kick" of the car to be set out, and replacing the intermediate car going to another station, back on the main line by another kick, and by a short movement, kick in the other car on the side-track, and then he might make the entire run of the siding, placing the car where it was desired to be placed.

Take the town of Olyphant, the average receipts and shipments from that station would not be more than one car per day, that is for one train; in setting out and picking up that load, the engine might make four trips the entire length of that siding, which is

2400 feet, which would be 9600 feet.

Grand Glaize is the next station; one car set out and one picked up, four engine trips the entire length of the siding, would be 4800 feet; that is, 4 times 1200.

Bradford, two cars set out and two picked up, eight trips of the

engine, or 3,000 feet would be 24,000 feet.

Russell, the next station, one set out and one picked up, would be four trips the length of the siding; 1500 feet would be 6,000 feet.

Bald Knob, set out five and pick up five, ten trips of 2100 feet,

would be 21,000 feet.

Judsonia, two set out and two picked up, eight engine trips, 21,600 feet.

3315 Kensett, 4 set out and 4 picked up, ten engine trips, 27,-000 feet.

Higginson, one set out and one picked up, 4 engine trips, 10,800 feet.

Garner, 1 set out and one picked up, 4 engine trips, 10,800 feet.

McRae has no passing or side-trick, but they have a spur about 150 feet long; if necessary to set out or pick up a load there, it would not be necessary for the engine to move more than 300 feet.

Beebe, 3 set out and 3 picked up, 12 engine trips, 28,000 feet. Ward, none set out and one picked up, 2 engine trips. In my familiarity there with Ward, I have only allowed one pick up; there are no cars unloaded there, not more than two or three a year; I have allowed two engine trips, 6,000 feet.

Austin, one set out, one picked up, 4 engine trips, 10,800. Cabot, 3 set out, 3 picked up, 12 engine trips, 28,800 feet. Holland, one set out, one picked up, four trips, 11,800 feet. Jacksonville, 1 set out, 1 picked up, four trips 12,000 feet.

McAlmont 1 set out; there is nothing picked up there hardly; two trops 2100 feet, would be 4200 feet.

3316 That makes a total of about 40 miles.

Q. That is the mileage on that division made in station

switching? What is the total mileage?

A. It is 84 miles from Newport to Little Rock. On that basis, which is high for this reason, in setting out four cars as I have stated before, it would not be necessary to make the entire run of the sidetrack; it would be a series of short forward and backward movements of the engine, although I have allowed for the entire run of the side-

Q. You have made the allowance there for the maximum switch-

ing that would be done for that service?

A. I have endeavored to do so.

Q. And have taken the average service performed at each one of those stations, based upon your experience in checking at those stations?

A. Yes, sir.

Q. That would give what per cent?

A. About 50%.

Q. Now, take some of the other divisions, without going into the details; you have them here if Mr. Moore wants to question you about them; I will save time by having you give the results of your figures, unless Mr. Moore wants them detailed as you did that one; you have two or three others there, representative ones?

A. Yes, sir. Q. You have it in tabulated form? 3317

A. I have the main line from Little Rock to Texarkana, and the Arkansas Division from Pine Bluff to McGehee, and Central Division from Van Buren to Little Rock.

Mr. Moore: If you will let us have that memorandum, it will not be necessary to go into the details of it.

Mr. HILL: Al- right.

Q. Just state generally what the percentages are on each one of those divisions?

A. On the local run from Argenta to Malvern, I have figured 45%; from Malvern to Texarkana, 35%, from Van Buren to Russellville, 32%; from Russellville to Little Rock, 50%; from Pine Bluff to McGehee, 40%.

Q. Are those divisions you have given, in your opinion the

heaviest divisions of the road?

A. Yes, in my opinion they are the heaviest local divisions of the

Iron Mountain—the heaviest is between Russellville and Little Rock.

Q. That is the one that runs 50%?
A. Yes, sir. The others are as heavy as there are in the state, the ones that I have used; the White River Division is very light, and the Valley, between Little Rock and Pine Bluff, is very light.

Q. How about the Memphis Division?

A. The Memphis division is about the same as the Arkansas Division from Newport to Little Rock.

Q. About the same as the main line?

A. Yes, sir.

Q. Did you check that in any other way than what you have

A. I have made a comparison according to the Missouri Pacific time tables of the time required or rather the time allotted to trains 96 and 98, local trains, running between Texarkana and Little Rock, and the schedule time of that train is 13 hours and 45 min-#56, which is one of the Red Ball freight trains running between Texarkana and Little Rock is scheduled at ten hours and

There you will see there is about 40% more time allowed the local train than there is the through train to make the same distance;

that would tend to support the statement.

Q. It would look like the man that made the time card figured about like you did?

A. It would tend to support that belief, yes, sir.

Q. Have you any familiarity with the Cotton Belt road Mr. Wright?

A. I have some, but not very much.

Q. You wouldn't know the stations on that line as you would know the stations on the Iron Mountain I presume, and the handling of freight at each station?

A. No, I have never had occasion to know the amount of business done at Cotton Belt stations, except at Little Rock. 3319

Q. Do you think the average that you have allowed for these stations in making these calculations fairly represent the business done at those stations, during representative periods of the year?

A. I think it is high; this table I have worked out would only represent one train; the other train moving in the opposite direction under that same service would not double the number of cars, and I think I have given the maximum amount of business that is handled at these stations.

Q. I don't understand your reference to double the number of

cars?

A. In working by this schedule, I have only taken the train going in one direction; if the train moving in the opposite direction performed the same service, for instance, at Homan, that would represent four set outs and four pick ups for that day.

Q. It would represent double the movement of just what one car

would represent?

A. Yes, sir.

Q. You think taking one car and estimating that the other train would do the same work coming back, would represent the business of the local both ways?

A. I think it would be a very high average, yes, sir.

Q. You have attempted to make an average that would be liberal, and so there could not be any just criticism 3320 of it?

A. I have attempted to do that.

Q. In this exhibit, under maintenance of freight cars, there is an assumption that a local train makes a stop every five miles, and each through train makes a stop every twenty miles, and it is assumed on the testimony of expert witnesses that the stopping and starting of trains is a cause of injury to the car equipment, and in order to get at the relative stopping and starting of the two kinds of traffic, some inquiry has been made upon that subject.

I wish you would state what would be your opinion of the relative stops of the two trains from your observation of those trains?

A. Taking the Iron Mountain system in Arkansas, I think that five miles average stops for local trains is very nearly accurate, and that twenty miles for through trains is a very fair average; that is my opinion, based on having frequently ridden on through freight

trains and very frequently on local freight trains.

Q. There is another item in here somewhere of an assumption, I don't remember the head, but I can state it, that the interstate passengers make use of the Pullmans, compared with the interstate passengers in the proportion of 25% to 75%. In other words, onefourth of the passengers that ride in the Pullmans are state, and three-fourths of them are interstate passengers. That is made on the passenger mileage basis.

3321 What is your opinion from your riding on trains through

the state, as to that division, from your observation?

A. It varies on different divisions; what is known as the Valley Division from Little Rock to the State line-

Q. Going south?

A. Yes, going toward Louisiana-Alexandria-or going in the opposite direction, those day trains known as 105 and 106, the state travel-each train carries one Pullman car-the state traffic on those cars is known as intrastate traffic, is probably 50%, I would guess; from frequent riding on that car and observation of passengers getting on and off.

On the main line, known as the Arkansas Division, I have ridden frequently on all the trains except one, that was running during October, 1907, and my opinion is that on those trains, 85% at least,

is interstate business.

That is based on both having ridden the trains and by having been with the agent when he was selling tickets, and by getting on the train at Texarkana and finding the Pullmans already occupied by passengers coming from the south and southwest.

Q. How about the Memphis Division?

A. Practically all of the Memphis Division is interstate business;

the passengers between Memphis and Bald Knob, the way the trains would run—I never observed that they used the Pullman car, but all the business between Memphis and Little Rock is interstate; I would say that at least 85% of that business is interstate.

Q. From where?

A. On the Memphis Division trains, running between Memphis and Little Rock.

Q. Nearly all those are either going to Memphis or coming from Memphis?

A. Yes, sir.

Q. How about the Ft. Smith division?

A. The day trains do not carry Pullmans, and the night train, one of them as I remember, is an interstate train, that is, running between Little Rock and Fort Smith, and one of those trains, one running interstate to Ft. Smith, I would say that 85% of that business was interstate, but on the other train running between Ft. Smith and Little Rock, I believe runs over the Frisco Bridge, probably would be 75% of those passengers would be interstate passengers; that many ride between Ft. Smith and Little Rock.

Q. What about the White River Division, they carry Pullmans

on them, don't they?

A. They operate a Pullman intermittently there; I don't know whether they operate it regularly at all; it was taken off for a great many months.
Q. That was for through service?

A. Yes, sir.

Q. Was there any state traffic to amount to anything on 3323 that train?

A. No, sir, very little state business on that train.

Q. Taking it as a whole, what is your opinion of what percentage of state passengers would ride in Pullmans, and what percentage of interstate?

A. Between 80 and 85%.

Q. You mean are interstate? A. Yes.

Q. You think this estimate here of 75% is very liberal to the interstate traffic?

A. I think it is.

Cross-examination.

By Mr. MOORE:

Q. When did you quit the employment of railroads?

A. August. 1909.

Q. What have you been doing since then?

A. I was employed by the Arkansas Railway Commission from about August 1st to March 1st. Since that time, I have been employed by Hamilton-Brown Shoe Co.

Q. In what capacity were you employed by the Arkansas Rail-

road Commission?

A. As investigator of the records and accounts of the Railway Company in the Arkansas rate litigation.

Q. What were your duties during the time you were working for

the Railroad Co.?

3324 A. My duties were that of travelling accountant, or travelling auditor, as they are commonly called.

Q. Were you engaged as travelling accountant all the time you

were employed by the Railroad Company?

A. No, sir, I was employed by the Railway Company from December, 1895, to August, 1909. In the greater part of the time, I was employed as an accountant; I was station accountant at Little Rock part of the time, and was travelling auditor; prior to that time, I was station accountant and cashier at Little Rock.

Q. What were your duties then during the time you were travel-

ling auditor?

A. The duties of travelling accountant on the Iron Mountain are very numerous. The principal duty is to check accounts of station agents, and to make transfer of station accounts from one agent to another.

Q. You were going, in the discharge of your duties, to the various stations on the railroad?

A. Yes.
Q. And you were checking up the accounts?
A. Yes.

Q. What part of the accounts was it that you checked up?

A. We ascertained that the revenue, as far as it could be ascertained, had all been accounted for, and to ascertain as far as possible that all the cars that had been set out or picked up at that station,

had been properly waybilled, and to check the warehouse to see that freight was on hand for all the bills that the agent was claiming credit for as being on hand freight, and dispose of over and short freight that might be at the station at the time, and a great many other things.

Q. The first one you enumerated was to check up the receipts and see that all the revenue that came into the hands of the agent

was accounted for?

A. Yes.

Q. I suppose you would take his books or different records he kept, showing the receipts, and compare that with either the disbursements he had made and the cash he had on hand-I don't mean the disbursements—the remittances he may have made. That was the way you did that?

A. Yes.

Q. You say you also checked the waybills. Tell me just what you would do in connection with that?

A. That was necessary to check them?

Q. That was necessary, in looking over the accounts of the agent with reference to his receipts, was it? That is to say, the waybills were the foundation of the freight station agent's receipts; it was from that receipt you had to check them up?

A. Part of his receipts.

Q. In other words, your purpose was to verify the accounts and keep track of the cash that had come into the hands of the agent, wasn't it?

A. Yes.

- Q. And in verifying the accounts, you checked up the waybills? 3326
- A. Yes. Q. Your duties in regard to keeping accounts of cars that were set out and waybills, was also for the purpose of making a check on the revenues handled by the agent, wasn't it?

A. Yes.

Q. And also the check on the freight that was handled in and out that you spoke of a moment ago, you kept a check on the freight on hand, that is, I suppose you mean by that, you would determine from the waybill what had come into the station and by looking over what was on hand, you verified the showing made on his books as to what had been delivered and paid for. That is what you mean?

A. Yes, sir, if it wasn't in the cash books, it was supposed to be on

hand, either carload or less carloads.

Q. The over and short freight was on hand?

A. The freight over at the station that the agent didn't know was in his warehouse, which was commonly the case, that you would find freight in the warehouse the agent didn't know was in there; that was part of the duties of the travelling accountant, to see that freight was properly taken care of, and forwarded to destination, or reported to the freight claim agent.

3327 Q. All those duties and various acts performed by you in the discharge of your duties, were for the purpose of checking

up the accounts and moneys handled by the station agent?

A. That was the purpose, yes, sir.

Q. Did you have anything to do at all with the operations of trains or cars or engines on the road?

A. No.

- Q. You had no duties to discharge in connection with them?
- A. No, the only duty that the travelling accountant ordinarily has with a freight train, is, frequently to check the conductor's waybills to see that he has waybills for every car he has in the train.

Q. Where do you make that check at?

A. Make it on the train.

Q. You meet the conductor on the train and while you are on the train you make that check?

A. Take the number of his cars, and then check his waybills.

Q. That is clerical work of course? Have you any other duty to perform on the train, or of that character, in connection with the contents of the trains?

A. I frequently accompanied the local freight train to see that agents were careful about checking the freight unloaded at their station with the conductor, to see if any discrepancy existed between the agents' and conductors' figures, that they were properly noted.

3328 Q. Your duties were all clerical and none of them had anything at all to do with the operation of the trains or anything of that sort?

A. No. sir.

Q. And what you learned about the movements there at the stations or anywhere else, you gathered from observation like anyone else that happened to be along could make?

A. I acquired that information for a purpose though. I wanted to inform myself as much as possible of the operation of freight trains.

Q. You acquired what information for a purpose?

A. As to how the conductors did their switching, and how the agents gave their orders to conductors to do switching, to see that it was done to make the least possible delay in movement of local freight trains.

Q. What was your purpose?

A. That was my purpose in observing how the switching was done, it was not merely casual observation, it was observing with a purpose.

Q. Was it your duty to do that? A. Yes, sir.

Q. Was it your instructions to do that?

A. Yes, sir, to do anything you could to see that the business of the company was properly handled.

Q. Did you make any reports as to the manner in which switching

was done and engines were handled by the engineers?

A. Yes, I have made verbal reports to the superintendents of the divisions on those matters; I did not make any written 3329

Q. Who was the superintendent of the division during the time

you were discharging those duties?

A. Among them was-

Q. Who did you confer with or report to?

A. I was reporting to the general auditor.

Q. Who is the General Auditor?

A. S. B. Schuvler; I was a subordinate reporting to the General Auditor, but at the same time. I conferred with the superintendents.

Q. Were your reports to the general auditor made in writing?

A. Yes.

Q. Whom did you confer with? What superintendent?

A. There were a great many at that time; among them was John Cannon, Mr. M. M. Ritchie, Mr. J. A. Swagart—there have been a great many; I don't know that I can recall them all.

Q. What was the nature of your conferences with those gentlemen,

tell me what they related to?

A. They related to the stations, as to the station agents, the performance of their duties, and also any other things that might be of interest to the superintendent, anything relative to the operation of freight trains, that would be necessary or was of advantage to him to know, and I knew it, I would tell him about it.

Q. Tell me just how you made your estimate that there was 4500

feet of switching at Grand Glaize station?

A. As I stated before, my duties in checking those stations gave me a knowledge of about how many cars it might be possible that they would have set out at their station or loaded ready to be picked up at their station by the local freight train. siding at Grand Glaize or passing track or unloading track, as it was commonly called; the length of it is 1200 feet; that is the entire length. If the local train had a load to set out at Grand Glaize, if he was going south for example, he would pull down to the station. uncouple his train, or cut it next to the load that he had to set out. he would open the switch and back that car onto the switch; it might be necessary for him to place that car back to the opposite end of the switch, or make a movement of 1200 feet with that load, although it would be very improbable that it would be done; it was more than likely to move 600 feet or half way into the switch, but it is possible that it might move 1200 feet. It would be necessary then for him to move his engine back from the north end of the switch or south end or 1200 feet again; that would be 2400 feet, and if he had a load to pick up-I should probably have stated that clearer—if he had a load to pick up, he would have taken out the load first; he would have uncoupled his train and gotten the load that he had to take from the station, and kick the load he had to sit out, kicking it back there; there would be four trips, four trips

at 1200 feet would be 4800 feet. That is the movement I 3331 have referred to and the method I have used in all these

illustrations.

Q. Suppose he had two cars to set out?

A. If he had two cars to set out, and they occupied consecutive positions in his train, the same movement I have described would set out those two cars, but if they occupied positions in the train intermediate with the loads that were going to other stations, it would be necessary for him to make a short movement in addition to the four movements or two movements I have just stated, and I have allowed for that; I have even allowed for him moving the entire length of the switch.

Q. Suppose he had two cars to set out from different parts of the train and both of them at intermediate points in the train, how

many movements would he have to make then?

A. If he had the two loads only to set out, it would be necessary for him to make—if those two loads were to be set at the opposite end of the unloading track in the direction in which the train was going, it would be three short movements of the engine, and two long ones; it would be two entire lengths of the siding and three, not necessarily more than 75 or 100 feet.

Q. Work of that kind to be done at stations varies constantly on different trains and at different times, according to the character of

the season and character of the business?

A. Yes, it varies, sometimes there would not be anything and sometimes there would be more.

Q. It varies as the train varies and sometimes varies on different trips?

A. Yes.

Q. You made a general statement as to the average percent of switching between Argenta and Malvern, and between Malvern and Texarkana, between Van Buren and Russellville, and between Russellville and Little Rock and Pine Bluff and McGehee, have you worked that out as you did between Newport and Little Rock?

A. Yes, I have worked it out on the same formula.

Q. You said that you made these comparisons according to the Missouri Pacific time tables of trains 96 and 98, what are those trains?

A. They are local trains. Q. Where do they run?

A. 96 runs between Texarkana and Malvern and 98 between Malvern and Little Rock.

Q. What is the time of 96 between Texarkana and Malvern?

A. 9 hours and 30 minutes.

Q. What is it between Malvern and Little Rock?

A. 4 hours and 15 minutes.

Q. You also made your comparison on train #56, what is that? A. That is a Red Ball train, running between Texarkana and Little Rock.

> Q. What is the time of that? A. 10 hours and 30 minutes.

3333 Q. How many people do you find travelling on the Pullman car on the Valley Division between Little Rock and McGehee usually?

A. I have ridden on that car when every seat was full, and also

when it was not so crowded; it varies.

Q. Conditions vary?

A. Yes. Q. Your estimates are of the percent of state passengers that ride on these Pullman cars, that is just based on the same kind of observation, from riding back and forth on them?

A. Yes, it is partly a matter of observation.

Q. You have never counted them for the purpose of making a correct apportionment of them?

A. No, sir, I never counted them for the purpose of making any such division as that.

Mr. HILL:

Q. Have you ever counted them at all?

A. I have no recollection of ever having counted them.

Mr. MOORE:

Q. Did you have the same means of observation as to the passengers who were state passengers on Pullmans and those who were interstate that the superintendents or officials of the road who were making a study of that subject would have had?

Question objected to and sustained.

Q. What opportunities did you have of knowing about the 3334 destination of passengers who were on the Pullman cars?

A. It was necessary that I check the accounts of the agent at Little Rock, which is the heaviest Pullman office in the State, and I know that the greater part of the Pullman tickets sold are interstate.

Another source of information I had, as I very frequently came from Texarkana on all the fast trains of the Missouri Pacific, I would find those cars pretty well filled up with passengers coming

out of Texarkana.

Q. What means of knowledge did you have from riding on the trains as to the destination of the passengers on the Pullmans, whether they were state or interstate passengers?

A. In riding on trains, I would see—if I was riding on the Valley

Division, I would see passengers get on and get off.

Q. Do you mean to tell me that you made it a rule to make observations of that sort for the purpose of measuring up in your mind, the number of men that were state passengers and the number that were interstate; do you mean to tell me you did such a thing as that?

A. I have discussed it many times with—

Q. You can answer my question, can't you. Just answer my question, do you mean to say you were in the habit of making an estimate of how many men in the Pullman car were state passengers and how many interstate?

A. No.

3335 Q. What means did you have of knowing, what interest did you have in it?

A. I had the interest of an employé of the railway company, in knowing what the condition of their business is,

Q. Was it your business to keep account of the state and interstate

passengers that travelled on a Pullman car?

A. No, sir, but it was interesting to me.

Q. What reason was there for your concerning yourself with that

subject then?

- A. It is of interest in this way, that an employee is interested in the revenue of the railway company he is working for, and when he is checking tickets, he will observe what number of tickets have been sold at long distances, and what have been sold to short distances.
- Q. I am not asking you what you did or observed when you were checking tickets. I am asking you your interest in the observation of passengers between state and interstate trips—I am not asking your motive in checking tickets, I am asking you what interest you had in making observations when you were travelling on these cars as to how many were state and how many interstate, you say you had no duties to discharge in connection with it. What interest was it to you?

A. It was the interest, as I have just stated, of an employee being interested in the longer route the passenger travels, because the railway company is paid more revenue then. It was interesting to me to know that.

Q. You were not charged with the duty of making any estimates based upon that knowledge were you?

A. No.

Q. It was not in the line of your duty?

A. No.

Q. Did you obtain any information upon which to base your calculations from checking the tickets you spoke of, checking the tickets—you spoke awhile ago about information upon this point obtained by you in checking the tickets for the passengers, didn't you?

A. The ticket cases, the sales of the ticket agents.

Q. Tell me just what duty you performed in that respect that would give you means of making this apportionment of passengers

on the Pullman between state and interstate?

A. It was necessary to make up the report both to the Pullman Co. and to the Railway Co., of the price of tickets sold and the revenue derived therefrom, with the destinations of the tickets, and in making up that statement, I would naturally observe how many were sold to points within the state and how many were sold interstate.

Q. Where did you get the information from, in making that

checking?

3337 A. The information is in the office of the ticket agent; the tickets are printed, a great many of them, with their destinations.

Q. Did the ticket agent keep an account of the state and inter-

state tickets he sold?

A. He kept an account of the destinations.

Q. What I want to get at is this, did he keep such accounts and records as would enable you to tell whether a man that bought a ticket from Malvern to Little Rock, passenger ticket, railroad ticket, also bought a Pullman ticket and whether a man who bought a railroad ticket from Malvern to Poplar Bluff, Mo., bought a Pullman ticket?

A. No.

Q. How could you tell anything about it then from the tickets?

A. I would tell from the Pullman ticket; they were not permitted to sell a man a Pullman ticket who has not proper railroad transportation to the same destination, or at least, as far as the destination of the Pullman ticket.

Q. Do local passengers on Pullman trains buy tickets from the

station agent?

A. No, sir, not many of them.

Q. They pay their fare to the conductor?

A. There is a Pullman office at Pine Bluff which sells tickets and at Little Rock—

Q. Don't you know that the great mass of local passengers 3338 going short distances in the daytime, who occupy simply a seat in the Pullman car pay the conductor?

A. Yes.

Q. How could you make any comparison between state and interstate passengers—the station agents reports wouldn't show that?

A. I know that is a very small portion of the business, compared

with those who buy tickets and go long distances.

Q. It is a fact that nearly all of the local intrastate passengers, nearly all of the state passengers, who ride on Pullman cars, pay on the Pullman cars and do not buy tickets at local stations?

A. If they are going short distances, yes.

Q. Don't you know you can't go to the records kept by the station agents and make a comparison between passengers who travel in the state and those who travel interstate, from that record, don't you know that?

A. I know you couldn't go to the records of the station agents

and determine that.

Q. How do you mean that you had means of information from checking the station agent's accounts?

A. I said that was part of the sources of my information.

Q. Could it be any part that could be relied upon if a large per cent of one class of tickets was not sold there or in there—could any sensible man act upon the per cent made from the information obtained at the station, wouldn't it be misleading if he attempted to do it, don't you know that?

A. I don't know that it would, not in connection with all the

other information that I possess.

Q. Now, tell me again just what your duties as traveling auditor were. I want to get you to state them all—all your duties as traveling auditor; all the duties you perform and especially your duties with regard to the checking of the accounts of all those employes whose accounts you had to check?

A. The duties of a traveling accountant of the Iron Mountain

are primarily, to check accounts of station agents.

In making that statement "the accounts of station agents" that covers a very broad ground of duties. Among those duties is to count the cash of a station agent; to check his way-bills inbound; to check all of his outbound way-bills and his dray tickets to see that his prepay and advance charges are properly accounted for; to check his ticket cash to see that all of the tickets he is charged for have been accounted for, both Pullman and passenger tickets; to make an accurate check of the warehouse and of his yard; in fact, all the accounts of the station agent should be gone over by the traveling accountant.

In addition to that, he is supposed to keep a general lookout for the performance of the duties of other employés. That is, the traveling accountant is rather considered a moral influence in the service of the railway company and if he sees anything that he thinks is contrary to the best interests of the company he is working

for, he should note it and report it to the proper official.

His duties are also to occasionally check the way-bills of local and through freight trains to see that all the cars that are carried in that train have way-bills, which are the instructions

Q. Did you have anything to do with the checking of the expense account?

A. To what expense account do you refer?

Q. Any expense account?

A. If you will tell me what you mean by any "expense account" in that case, I will try to answer your question.

Q. Did you have anything to do with checking the expense of

operating trains?

A. Why, I have done such a thing, yes.

Q. I did not ask you if you had done that: I asked you if that was within the line of your duty as traveling auditor at the time you speak of?

A. No, it is not a part of a traveling auditor's duty.
Q. Was there another auditor who did that?

A. There might be. I might be called upon to do so but it was

not a part of my duty; I might be specially delegated to do so.

Q. I asked you if there was a traveling auditor who checked operating expenses during the time you were acting in that capacity for the purpose of checking revenues?

A. I don't know.

3342 Q. Would it not be a little remarkable if there should have been a man engaged in that character of service along with you and you would not know about it?

A. I don't know. There might be.

Q. Do you mean that there was not, or do you mean that if there was you did not know it?

A. If there was, I did not know it.

Q. Did you check the operating expenses?

A. I did not.

Q. You had nothing to do with that, did you?

A. Nothing at all.

Q. Your duties were wholly in connection with revenue?

A. As I stated, I might have been called upon to do it, but it was not a part of my understood duties to do that.

Q. Your duties were connected with the revenue, were they not?

A. I have stated what my duties were.

Q. Was that connected with the revenue or not?

A. It all might be connected with revenue. You might speak

of it in that way.

Q. You spoke of relative time of through and local trains: did those local trains as a rule keep on that time and make that run within the scheduled time, or were there a good many delays?

A. They were supposed to make it on schedule time.

Q. I am not asking you what they were supposed to do;
3343 you have testified here as to having a great deal of knowledge
based on information: now I ask you if from your observation——

A. I have ridden on them-

Q. Let me finish my question: If from your observation did the local trains lose a good deal of time from their scheduled time in making their runs?

A. My observation is that about one-half the time, probably, they are on time, and probably one-half the time they may be late.

Q. How does the loss of time on local trains compare with the loss of time of through trains, speaking with reference to the schedule time of each class of trains?

A. They are just about the same.

Q. You think there is as much loss of time from the schedule time on the through as on the local trains?

A. That is my observation.

Redirect examination.

By Mr. HILL:

Q. Mr. Wright, as I understood your answer on cross examination about the percentage of state passengers on the Pullman, you base that upon the various matters that you mention, examining the Pullman tickets in the ticket office and also your riding on trains, your general knowledge of trains?

A. Yes, sir, that statement was made from accumulated knowl-

edge from various sources.

Q. No one of which you answer from, but from all of them?

3344 A. All of them combined.

Q. You spoke of reporting to the auditor in writing and that answer was in connection with some other question that Mr. Moore asked you about writing to the superintendent the various things:

Did you report in writing to the Auditor anything except in re-

gard to your check of the accounts of the station?

A. Yes, sir, there might be matters of a private nature that were interesting to the superintendent, that I would also report to the general auditor.

Q. That would go to the auditor as well as the superintendent?

A. Yes, I would make him a copy of it.

Q. I don't know how you got the length of those side tracks: did you explain that?

A. I believe I did.

Q. I believe I will ask you to state it again.

A. It is based on the information given in the railway company's time cards. They give the capacity of the passing track as so many cars based on an average of the length of 30 feet to the car: that was the way I arrived at the length of the side track.

Q. You have taken the average length of the car and used that as a factor with the number of cars to be handled on given tracks?

A. Yes, sir.

3345 T. F. Wharton, recalled, testified as follows:

Redirect examination.

By Mr. HILL:

Q. Mr. Moore called for a statement from you the other day, Mr. Wharton: have you it prepared?

A. Yes, sir.

Q. Mr. Wharton, Mr. Moore called your attention to a statement you had made in an affidavit before Judge Van Deventer, a statement of your firm as to the ton mile being the best basis to use in dividing expenses between state and interstate traffic:

Have you had occasion to study that question more thoroughly

since you made those statements?

A. Yes, sir.

Q. What is your view about it?

A. At the time the affidavits were made that was the best basis we had been able to work up to that time; but the whole difference in the cost between state and interstate business being based almost entirely on the cost of local and through service, we thought it advisable to get at the cost of local and through service and make our apportionment of expenses on that basis instead of the ton mile basis.

Q. Believing it was more nearly accurate than the ton 3346 mile basis?

A. Yes, sir.

Q. You had no such statistics as are in this case before you in the Missouri Case, had you?

A. No, sir, not as to the relative handling of freight on local and

through trains, car miles, etc.

Q. Mr. Wharton, Mr. Moore questioned you as he did other witnesses, as to the justice of charging the trans-state freight with

terminal expense:

You have given your reasons why you thought it was right, I will not go into that again, but I will ask you if you made a calculation showing the difference in cost if you would charge it as his questions indicated it should be, that is, not to allow any station handling for trans-state business.

A. Yes, sir.

Q. Then the question was asked about the terminal handling of trans-state cars: have you made an exhibit showing the difference it would be if you would concede the point and reduce that 25%?

A. Yes, sir.

Q. Mr. Moore questioned you and Mr. Ludlam about the basis of traffic expenses which you put upon a revenue basis, and I want to ask you if you have made a calculation to show if you would use

a ton mile basis what effect that would have upon these sta-

3347 tistics?

A. Yes, sir.

Q. I believe you stated in your testimony that you thought the gross ton mile basis instead of the car mile basis would be the

nearest accurate for "maintenance of way," and that you did not make the calculation upon that basis because you had no statistics of the Iron Mountain and you preferred to make both roads upon the same basis.

Attention was called to the fact that there were Cotton Belt statistics: have you worked up what difference that would make if you used the gross ton mile, so far as the Cotton Belt is concerned?

A. Yes. sir.

Q. I will ask you to attach to your testimony the statistics showing these various matters concerning which I have inquired?

A. Yes, sir.

The paper referred to last is marked "Defendant's Exhibit "X," T. F. Wharton, June 3, 1910, M. J. C." and is in the words and figures as follows to-wit:

For Exhibit "X," see Volume 9, page 5840.

3348 Q. I will ask you if you have made similar statistics except as to the gross ton mile, as to the Iron Mountain road? A. Yes, sir.

Q. I will ask you to attach those calculations to your testimony as "Exhibit Y."

A. Yes, sir.

The paper last referred to is marked "Defendant's Exhibit Y T. F. Wharton, June 3, 1910, M. J. C." and is in the words and figures as follows to-wit:

For Exhibit "Y," see Volume 9, page 5843.

3349 Q. Mr. Wharton, there was some question yesterday asked as to whether in your exhibits apportioning the expenses between state and interstate on freight business you had taken care of the extra expense for the difference in the length of haul of the two classes of traffic:

I wish you would explain how you have taken care of that extra

expense, if you have taken care of it?

A. The station expense constitutes a considerable portion of the extra expense due to the short haul of state business as compared with interstate business, and that is taken care of by apportioning it upon a tonnage basis without regard to the length of haul.

Q. There would be no question of length of haul on that station

expense, would there?

A. No, sir.

Q. That is actual handling of the tonnage itself?

A. That is it at the stations. The terminal handling of cars is charged up respectively to the local and through trains in proportion to the cars handled, which takes care of that expense so far as it is local and through; that could not be separated between state and interstate business for the reason that it would be very difficult to tell how the cars were loaded, or whether they were loaded or empty, or whether they were handling state or interstate, or a mixture of both; so that is divided between local and through upon the basis of the number of cars handled for each service.

3350 Q. That is an actual account of the cars?A. Yes, sir.

Q. And the proportion finally taken care of in the ton mile?

Q. In what other respect have you looked after that phase of it?

A. Well, all expenses that we have divided between local and through have been divided, aside from those, practically on a car mile or train mile basis, which takes into consideration the length of whatever haul there is in each class of service.

Q. Now, there is shown to be a difference in the length of haul on the Iron Mountain and Cotton Belt: has that been taken into

consideration?

A. The statistics show that on the Cotton Belt the local trains are run about one-half the distance, on an average, that the through trains run; while on the Iron Mountain the local trains run almost the same average that the through trains run. That is taken into consideration in the division of the maintenance of cars' expense and the proportion of that expense due to the terminal handling, where on the Cotton Belt we have allowed four handlings for cars in local service and one handling in through service; and on the Iron Mountain for two handlings of cars in local service and one handling for cars in through service.

3351 Q. In that way you think that every element of difference in the length of haul where there is material differ-

ence, has been taken care of?

A. Yes, sir.
Q. Mr. Wharton, have you prepared a table of comparison of revenue and expense per train mile for years ended June 30, 1897 and 1907, as shown by the Interstate Commerce Commission reports for those years?

A. Yes, sir.

Q. Will you file that table as Exhibit "Z?"

A. Yes, sir.

The paper last referred to is marked "Defendant's Exhibit Z, T. F. Wharton, June 3, 1910, M. J. C." and is in the words and figures as follows to-wit:

For Exhibit "Z," see Volume 9, page 5846.

3352

St. Louis, June 16, 1910.

1. A. Hamilton, a witness of lawful age, being duly produced, sworn and examined on the part of the defendant, testified as follows:

Direct examination.

By Mr. HILL:

Q. State your name; age, residence and occupation?

A. T. A. Hamilton; 36 years; Webster Groves, Mo., I am an accountant in the employ of Haskins & Sells, Certified Public Accountants, of New York.

Q. How long have you been connected with Haskins & Sells?

A. Since June, 1906.

Q. In what capacity have you been connected with that firm?

A. As an accountant.

Q. Your work has been entirely that of an accountant?

A. Yes, sir.

Q. Prior to your connection with Haskins & Sells, in what line of work were you engaged?

A. For seventeen years in railroad work.

Q. I wish you would state your experience in railroad work, beginning at the first railroad work that you did and state consecutively the various railroad positions you have held and the

nature of your duties in each?

A. I began in 1889, at the age of 15 years, as a messenger boy in the office of the District Passenger Agent of the Canadian

Pacific Railroad, at Toronto, Canada.

My duties were such as ordinarily falls to the lot of a messenger boy in an office of that kind. I stayed in that position several months, and in 1890, the Fall of the year, I went to Detroit as a junior clerk in the office of the Assistant General Manager of what was then known as the Chicago & Grand Trunk Railway, part of the Grand Trunk system. I was employed in minor clerical capacities around that office for seven or eight months.

In April, 1891, I came down to St. Louis and went to work for

the Missouri Pacific road in the office of the General Auditor.

Q. What was your position there?

A. First I was employed in assorting and filing, in station order, the impression copies of way-bills furnished the Auditor by the Freight Agents on the road, so that they might form the bases of his freight accounting checks of various kinds.

In the spring of 1892 I left the employ of the Missouri Pacific and went to the Southern Pacific at Houston, Texas. I spent three months there in the local freight office, assisting the car accountant,

keeping record of the cars in and out of the yard, and on hand, and the various duties that fall to the lot of a car ac-

countant in a local freight station.

I came back after three months to the Missouri Pacific at St. Louis, going back into the office where I had formerly been employed, and I was employed for sometime thereafter, compiling the auditor's abstracts of freight way-bills in what are known as the "freight journals" of the Company, for the purpose of affording a basis against which to check agents' freight, received reports and other similar reports.

I do not recall exactly how long I was employed in that character of work, but it was not a great while, and after that I was a general utility man-if I may use the term-for the Chief Clerk of freight accounts, a position that now carries the title of auditor of freight

receipts of the road.

Q. Is that still with the Missouri Pacific?
A. Yes, sir; and my duties there were practically every line of work in the department, excepting the revising of way-bills. I took the place of men who were sick, men who were over-burdened with work, and served in various capacities in practically all the work of the department.

One of the duties regularly assigned to me was the handling of the freight auditor's end of freight claims giving the freight 3355 claim agent the settlement as shown by our records that he

might know how to properly dispose of the claim.

I stayed with the Missouri Pacific until July 1900, and at that time left the service of the Company and went to the Illinois Central Railroad at East St. Louis, serving that Company as bill clerk for approximately a year—I do not carry those exact dates in my head. My duties with the Illinois Central Railroad were the making of way-bills for transportation of freight over the Company's line and over the roads with which they had connections; the rating of the freight, applying to it the proper rate for its transportation as indicated in the tariffs which were furnished us for that purpose; the classifying of the freight and the making of the way-bill which was to carry it over the road.

After about a year with the Illinois Central, I went to the Louisville and Nashville at East St. Louis, and for about three months, or thereabouts, served in the capacity of bill clerk, performing practically the same duties as I had performed for the Illinois Central

road.

At the end of that period I was appointed Chief Bill Clerk for the Company—for the Louisville & Nashville—having charge of the en-

tire outbound freight movement from East St. Louis,

We had a peculiar organization there for a local freight stationat least it appeals to me as such. The chief clerk divided his organization up into four parts, inbound; outbound; claim and miscellaneous; and accounting, which included the

cashier.

He turned over to the man in charge of "outbound" (who, at this time, was myself,) the entire supervision of the moving of freight from the Company's terminals in East St. Louis, making it a charge upon me as soon as it hit the company's track connection or was unloaded on the company's platform. While I did not personally supervise the platform, the platform foreman consulted with me as to the loading of his merchandise cars and was governed by me, largely, in that matter.

The vard-master consulted with me in the moving of freight when there was a question of giving preference to one car over an-

other.

It was also my duty, and the chief part of my duty, to see that way-bills were properly made to cover the freight forwarded from East St. Louis by the Louisville & Nashville. In doing that it was necessary for me to keep up the entire tariff file at the station. handled freight and had through billing to practically all the points East of the Mississippi and South of the Ohio and Potomac rivers. We operated two "fast freight lines" into Eastern seaboard territory. one all rail and one a rail and water route, which necessitated the keeping of a large tariff file.

3357 It was also my duty to assist in general work of the desk; educate new men as to the handling of the Company's tariffs,

and the making of way-bills.

After serving in that capacity from early in 1901, until the Fall of 1903 or 1904—I am a little mixed on that year, I am not quite sure whether it was 1903 or 1904—I was loaned by the Louisville & Nashville to Mr. Peyinghaus, who was at that time the agent of the St. Louis Iron Mountain & Southern Railway at East St. Louis. The Iron Mountain had just secured possession of what was known as the "St. Louis Valley" a line running from Valey Junction, just outside of East St. Louis at that time, to Gale, a connection with the Cotton Belt transfer service to the Missouri side of the Mississippi River. The road now runs to the east end of Thebes Bridge.

Mr. Peyinghaus was about to take charge of the station at Bixby, which was then intended to be the north terminal of what is now known as the Illinois Division of the Iron Mountain road, and inasmuch as the Iron Mountain was reaching practically all its connections at East St. Louis through the medium of the L. & N.—they had leased trackage rights from the L. & N. from Illinois Transfer Junction to East St. Louis—he wanted somebody who knew the east side terminal situation from an L. & N. standpoint, to help him organize his office, the terminal end of it and possibly the yard end of it, and as a matter of personal accommodation to him, the L. & N. loaned me to him for a stipulated time, which was to be two

3358 months.

I went out to Bixby. The yard was not quite completed, but they were about ready to turn it over for transportation purposes and operate it. I spent two months out there as chief clerk to Mr. Peyinghaus, and subsequently to Mr. Kell, who succeeded him, assisting in the organization of that terminal, and handling of freight in and out, and endeavoring to get things in working order.

I went back to the L. & N. at the expiration of that time and resumed my duties as chief bill clerk, continuing in that capacity until the spring of 1905, when I was appointed chief clerk to the general

agent at the traffic department of the L. & N., at St. Louis.

My duties as chief clerk to the general agent at St. Louis were practically the conduct of the entire business of the office, aside from the solicitation of freight. I handled the general agent's correspondence; kept up the company's tariff file in that office; quoted rates—I had a bill of lading clerk, but I quoted rates in his absence. It was also my duty to investigate such claims as were filed with our office by patrons of the road. The L. & N. traffic department handles its own claims. That is, the freight claim agent—at least in those days—reported to the General Freight Agent.

A great many claims were filed with us, which made it necessary for me to investigate the loss and damage of freight on the L. & N. rails, and in the case of stuff going to or received from connecting lines, to make an investigation up to a junc-

toion point on the L. & N. rails.

I was empowered, over the signature of the General Agent, to

voucher loss and damage claims up to a certain maximum figure, after having satisfied myself of their justice and reasonableness.

I was empowered to pay overcharge claims in any amount, provided I could verify the through rate claimed by the shipper or the consignee, as the case might be. I used to handle some 600 claims per month in that manner. In doing that I became fairly familiar with the workings of the railroad, in addition to the knowledge that I had gained in my local freight office service and my transaction of business with freight agents of the road, in that capacity.

I left the L. & N. in June of 1906, to enter the employ of Haskins

& Sells, by whom I am still employed.

Q. Since you have been employed by Haskins & Sells have you had railroad work to do with? If so, what has been the character of that

work that you have done?

A. I assisted Mr. Taliaferro, then of our staff, in the Missouri Rate Case, gathering statistics of various kinds; making various investigations in the offices of the Missouri Pacific, Burlington, Wabash, Santa Fe, Kansas City Southern and other roads; compiling various statistics and doing various work outlined by Mr. Taliaferro;

3360 and prepared data necessary to compile our exhibits in that

case.

3361

The largest single piece of work that I undertook, was the preparation of a statement of the tons, ton mileage, and revenue on the Burlington road, for the month of September, 1906, the object being to classify the traffic of the road in Missouri, between state and interstate.

The preparation of that statement took about four and one-half months, as I recall it, from early in November, 1906, to about the

middle of March, 1907, or the early part of March, 1907.

Q. Where was that statement prepared? I mean, in what office? A. In the office of the General Auditor of the Chicago, Burlington & Quincy Railroad, at Chicago. The work was done by Burlington clerks, the actual detail. The number of men employed on the work varied from 10 to 30, all that could be spared for that work, but the entire conduct of the work was turned over to me by Mr. Sturgis, General Auditor of the Company and was left solely in my charge, his men doing the work under my instructions. In fact, I had to take the force of green men he had available for the work and educate them as to how it should be done, in the first instance.

Q. I did not quite eatch the nature of the statistics.

A. It was a classification of the Company's freight traffic in Missouri, tons, ton mileage, and revenue, as between state and interstate business, for the month of September, 1906,

Q. As shown by the General Auditor's books?

A. The statement was made from the original records of the Company. The Burlington's general auditor has on file the original way-bills covering the traffic on his line, where the way-bill rests on his line.

That was the largest single piece of work I undertook.

Q. What was the other kind of work that you did in connection with the Missouri Rate Case?

A. I assisted in doing some similar work in the General auditor's office of the Missouri Pacific. The period covered in that statement was the month of October, 1905. I assisted in checking the various figures submitted by the various railroads in the litigation and spent a great deal of time compiling such a variety of statistics that it would be almost impossible to tell you in detail now what they were.

Q. Outside of your work in railroad offices and the Missouri Rate case, have you done any other railroad work as an accountant, and if

so, what has been the character of the work.

A. Yes, sir. I have assisted on the audit of some of the largest railroads in the southeast, who are clients of our firm. The nature of the work done by me in those audits was largely the verification

of revenue accounts, having to do with the agents' accounts, 3362 largely. That was in the summer and fall of 1907, during

a hiatus in the Missouri Case.

I have done other railroad work for clients of ours here in St. Louis, in the preparation of statistics from books and records of the companies and assisted our Chicago office on railroad work where the question of taxes was in controversy between the Government and the railroad, based on the gross earnings of the railroad.

I think that is about the scope of my railroad work for Haskins

& Sells.

Q. What other character of work have you done for Haskins &

Sells since you have been employed by that firm?

- A. I have assisted in the audits and have conducted audits myself of various manufacturing concerns; steel plants; boot and shoe manufacturing concerns; concerns manufacturing clay products; banks; brokerage houses; trust companies; coal mines, concerns manufacturing electrical apparatus; public service corporations, and a good deal of miscellaneous work that usually comes in our year's business.
- Q. Have you established or assisted in the establishment of cost accounting systems for various mercantile and manufacturing industries?
- A. I have assisted senior accountants who were preparing systems, preparing the ground for them and working with them. I have

given quite a little thought to the matter, but have never as 3363 yet been in charge of an engagement where we were called

on to put in a cost system.

Q. Are you familiar with the cost accounting systems that are installed by your accounting firms and other accounting firms, and the principles involved in them?

A. I have made some study of the matter and have had consider-

able discussion on subjects of that kind.

Our organization carries on a campaign of education for its staff pretty near all of the time. We get the best thought of the entire organization along these lines, and we think we keep fairly well up to date in that way.

Q. I wish you would state what relation you occupy to the present

litigation?

A. When our firm was retained by the Railroad Commission of

the State of Arkansas to assist in investigating the statement submitted by the railroads in this matter, and to prepare figures to support the state's side of the case and secure the necessary data for that purpose, I was assigned to take charge of the field work in the matter for our firm. That is, I was placed in direct charge of the work in the railroad office.

Q. About when did you begin that work?

A. July of last year; I think about the 11th of the month, if I

remember correctly.

Q. You have been a guest of the railroad offices, I believe, pretty continuously from that time down to the present time, have you not, Mr. Hamilton, and practically lived in their accounts?

A. Yes, with one or two short intervals, that is true.

Q. Are you familiar with Exhibit 26, filed by the Iron Mountain Railroad, showing a statement of trans-state interstate and state freight handled within the month of October, 1907, and the statement in Exhibits 19 and 20, filed by the St. Louis Southwestern Railroad, showing ton miles of commercial freight handled on through and local trains in the state of Arkansas, and the revenue, divided between state and interstate, during the month of October, 1908, and the miscellaneous train statistics shown in Exhibit 20, for the month of October, 1908, on the Cotton Belt road?

A. Yes, sir.

Q. Are you familiar with the method of compilation and the re-

sults shown therein?

A. In the case of Exhibit 26, I have pretty largely verified the method which Mr. Roth stated he employed, and in the case of Mr. Kimbell's Exhibits, I am familiar with the way in which those figures were obtained, from hearing Mr. Kimbell state it. That was a train test made on the trains.

Q. I call your attention to Exhibit No. "I" filed by Mr. Wharton, being the freight statistics of October, 1907, on the St. Louis, Iron Mountain and Southern Railroad Company, and ask you if you are

familiar with the same?

3365 A. I am.

Q. Did you compile this or was it done under your direction?

A. The exhibit itself was compiled under Mr. Wharton's direction, with my assistance, largely. That is, the making of the various calculations and the framing of the exhibit, but most of the basic data contained in the exhibit was compiled either by me or under my direction.

3366 Q. Now, Mr. Hamilton, take up that exhibit and give thoroughly and in detail, a history of the compilation and the methods pursued by you in reaching the results that are shown therein.

A. The first item on the exhibit is "Ton miles of freight carried" subdivided between local trains and through trains. We worked up the figures shown in the local train column.

Before explaining the method, I will say that that work was done by myself, jointly with the employés of the Arkansas Railroad Commission, and at times some small assistance from members of the staff of Haskins & Sells, where we needed a man and could use one

to advantage temporarily.

The bulk of the work, however, was done by Messrs. Wright and Dutlinger, and myself. We had some assistance from other employés of the Commission, but the major portion of the work was done by us.

Q. While you are on that and before you go into it further, Mr. Hamilton, I wish you would state, generally, the ability of these various men who assisted you in this work, and their experience and

training to fit them for the work done.

A. Mr. Wright, who has been on the stand in this case, and who, I think, has given his railroad experience rather fully, I do 3367 not think needs much comment from me, except to say that in my judgment he is a very capable railroad accountant and a very thorough worker.

Q. He has had such experience as would enable him to do the

class of work he did in this case?

A. Yes, sir. We found his local knowledge of the situation on the Iron Mountain in Arkansas was invaluable to us in getting these figures together, he having been close to the ground down there, as Traveling Auditor—I think for seven years—and knowing, as I recall he put it "all the landmarks along the road", was of great help to us.

I understand Mr. Dutlinger had some years' local freight office experience with the Iron Mountain road. I know this, of course, only as he tells me, but I think that the character of the work he did bears out his statement that he was well qualified for that class of

work.

I understand that he was for some time located in the local freight office of the Iron Mountain, in Little Rock, and after that time was employed by Mr. T. H. Bunch as his traffic man, handling the railroad end of his grain business in Little Rock, and getting pretty closely in touch with the railroads of the state in that way.

We also had with us a Mr. Reichardt, whose services were largely in a minor clerical capacity. He copied figures, assisted in footing figures tabulated by us and did work of that character, for a short

time.

3368 The real work of compiling these statistics, however, was done by Mr. Wright, Mr. Dutlinger and myself, with the occasional assistance of some of the Haskins & Sells men.

Q. Was Mr. Wright competent to do the work you imposed upon him?

A. I think very thoroughly so, yes, sir,

Q. And the men from Haskins & Sells' who worked upon this matter, were they competent to do the work imposed upon them?

A. Yes, sir.

Q. In other words, you regarded the staff that worked under you as competent to do the work that was done by them?

A. I think so, yes, sir.

Q. Now, Mr. Hamilton, detail how that was compiled, stating it in your own way and giving a connected and detailed history of it.

A. The first item on Exhibit "I" is "Ton miles of freight carried."
The first column on the exhibit gives the statistics for local trains.
We worked up the figures that are shown in that first column all the way down the exhibit.

Q. How did you work them up?

A. Beginning with the ton miles of local and mixed freight trains operating on the Iron Mountain in Arkansas during October

3369 Q. How did you get them?

A. Why, it is quite a long story, how we got the ton mileage. That is the gist of the whole thing.

Q. I thought you were referring to taking exhibit 26?

A. No, sir. We classified between state and interstate in a man-

ner that I will describe, for your information.

We first made an examination of the railroads' official timecards, which are issued solely for the government of employés, to ascertain what local trains and mixed trains were scheduled to run in the month we had under review, and between what points they were scheduled to run.

We next examined the dispatcher's train sheets. The dispatcher's train sheet is the report he makes daily to the Transportation Department, of all trains of all classes, moving over the piece of road within his jurisdiction; the dispatcher, of course, having sole charge of the movement of trains while they are on the road.

An examination was made to see what local freight and mixed

trains had been annul-ed or canceled.

We first had the schedule showing what should have been run and then we examined the dispatcher's sheets to see what, according to his record, had not been run.

We did not finally accept the dispatcher's sheet as evidence that any local train or mixed train which did not appear on it,

3370 had not run, but we went further than that. Where a train was missing that was scheduled to run and the dispatcher did not show it had been run, and did not make the plain statement that it had been annul-ed or canceled, we had recourse to the wheel reports for that date, on that division.

Q. I wish you would explain the wheel report, if you have one

here.

A. I think I can explain it better later on.

We went to the wheel reports made by the conductors on that division and examined them to see if, perchance, some train had been run to do local work, but not run under the local's regular scheduled number. Oft-times they run a train as an extra, under the engine number; for reasons known to the dispatcher he does not run it under the regular number. If we found such an extra train which, in our judgment supplanted the local, we took it as the local train serving that piece of road that day.

In determining that we ascertained first whether that local freight train had handled less-than-carload peddling merchandise, necessitating stops from station to station, and whether it had made an extraordinary number of pick-ups and set-outs for carload business, more so than a through train would normally make. Finding a train of that character, we went still further to the pay-roll and time

books (that was done later on, but was done eventually) to 3371 find that the crew had been paid the rate of wages which under the Company's contract should be paid a local train

crew---

Q. You mean the Company's contract with its employés? A. Yes, sir. We then determined that was a local train. Now, to go back to your question about wheel reports:

The wheel report is the report which the conductor in charge—I speak now of freight wheel reports—in charge of the freight train, renders to the transportation officials of the road, as to what the train under his charge had done. In other words, it is a train performance sheet.

Q. That is the physical performance?

A. The actual performance of the train as reported by the conductor.

Q. That does not include the business, the freight that is hauled on

A. It includes some tonnage figures. Perhaps I can really tell you better by describing what it does include. It does not take in any revenue figures.

Q. That is what I had in mind: it takes in none of the revenue?

A. No, sir. It shows first the points between which the train runs and the district and division over which it ran; the name of the conductor in charge of the train; the number of the train; the engine number or engine numbers, if two engines pull the train or

if they change engines en route; the names of the engineer in charge of those engines; the time of departure from and arrival at the termini of its run; also some information as to tonnage rating, estimated for the use of the operating department. I think that figure is used to estimate the percentage of its rating which the engine is hauling. It also gives the number and initial of each car in the train at any time during its journey, or during a train's journey; the kind of car-meaning by that whether it be a box car, a flat car, a furniture or stock car, etc.; the marked capacity of the car in tons, that is, its loading capacity; the station at which the car was taken by that particular train and the station at which it was left. (I am giving the basic information that the report affords). The conductor also inserts the car mileage between the points at which the car was taken and left and to amplify that he divides his car miles between loaded and empty cars-divides his car mileage between loaded, empty and work car miles. If he obeys instructions, he should give on his wheel report the weight of the contents of each car in net pounds, as shown by the way-bill. I believe that applies to carload business and that certain estimates are given him on the back of the wheel reports for merchandise, less-than-carload, he should show the tons gross-that is, the weight of the car and the load, supposedly the tare weight taken from the

side of the car and the billed weight of the car's contents, or, 3373 if the way-bill shows that the car has been sealed, the gross weight obtained on the scale, which includes the car and the load; he should show the contents of the car as indicated by the way-bill; the final destination as indicated by the way-bill (although in my experience, that class of information from a conductor does not amount to much); he should show the seals on the car, both sides and ends; that is, the seal protection applied by the agent loading the car or at some intermediate station as it became necessary.

Having that information, the wheel report gives the entire per-

formance of the train.

Q. Have you a blank form of a wheel report before you? A. I have one handed me by Mr. Johnson this morning.

Q. I wish you would file that as an exhibit.

A. This is a new form and is slightly different from that which was in use in 1907, but in no vital particular.

Q. If you can get one of the others later, I would prefer it: How-

ever, you may file this now.

The wheel report last referred to is marked, "Defendant's Exhibit A-1, T. A. Hamilton, 6/16/10, M. J. C." and is in the words and figures as follows:

For Exhibit "A-1", see Volume 9, page 5848.

3374 The Witness: I had explained how we had determined what trains were local trains before we began to analyze their performances in ton miles, and I digressed to explain what a wheel report was, as that was one of the bases on which we worked.

Having located the trains performing local freight service—and in fact, I included the mixed trains for freight service in the matter I have outlined—we took off an abstract of the conductor's wheel reports for those trains for the entire month. Our abstract included the number and initial of all full carloads, the stations at which each car was picked up and set out by the train; the ultimate destination of the car's contents as shown by the wheel report. We took that information, not because we believed it was absolutely accurate, but because we thought it would be of material assistance to us in running down the way-bills to cover the cars later on, and it proved to be so——

Q. You say they were not used for any other purpose: Did you not get some of your ton mile statistics and car miles from the wheel

reports?

A. I did not refer to the wheel report. I said we abstracted from the wheel report what the conductors said was the ultimate destination of the freight; that information appears on our sheets and I just included it for that reason. We figured the car miles

3375 made by less-than-carload or package freight cars, direct from the wheel reports, taking the point at which the car was shown to have been picked up and the point at which it was set out by that train, and figuring the difference between based on the mileage shown in the Company's official station list, which I am informed is the basis of all their mileage statistics.

We figured the mileage of the empty cars in the same manner. The mileage figures for the less-than-carload and empty cars were entered by us on our abstract sheets in totals, for each train, each day. What I am getting at is this: we set up each individual full carload. We made no attempt to set up each individual less-than-carload or each empty car, and for the reason that we were not going to attempt to classify the less-than-carload freight between state and interstate. I will explain in a few minutes why that was. One empty car was the same to us as another. Therefore, we got the mileage of the less-than-carload and empty cars, and entered them in separate totals for each class on our sheets, for each day.

After we had our sheets abstracted in that way, we started out to locate the waybills to cover the freight in full carloads;

I have a copy of an Iron Mountain blank waybill.

Q. I wish you would explain fully what a waybill contains, what

it is, and what its office is in handling freight?

A. This form I have here is the form for the billing of ordinary freight. There are other forms, cotton waybills, forms for red ball freight, live stock, and waybills of various sorts, and sizes, but vitally, this is the standard form of waybill used now by practically all railroads in the United States, so this will serve as a type of all the others, although there are some differences.

A waybill serves both the Transportation Department and the Accounting Department of a railroad. Its functions in the Transportation Department are to cover the transportation of freight on the company's trains. In other words, it is the conductor's authority, issued to him by the Company's agent, for the transportation of freight in his train. It is a rule on most railroads, that no freight shall be transported without a waybill, there are some variations of that to expedite traffic, but that is the general rule. The waybill, from the transportation point of view, shows where the shipment was billed from, and where it was billed to, how it is to be routed,

to its destination, the car number, the number and initial of the car into which the freight is loaded, the name of the shipper or consignor, and other originating references, the marks of shipment, consignee, its final destination, description of the articles covered by the waybill, and any necessary classification conditions, or rules under which they are shipped. The weight of the shipment is also given on the waybill.

Q. Who makes out the waybill, and where does it finally go?

A. That comes in on the accounting side of the proposition.

That is practically all of the data that is of interest to the Transportation Department; it fully describes the shipment to them, informs them what is to be done with it, its nature and weight, and gives them all the information necessary to have in its transportation or movement; that is the idea of the waybill. It is just like a ticket for a passenger, only the passenger is able to talk and take care of himself, and you have to make a waybill to take care of the freight.

As an accounting vehicle, it affords the general auditor of the company, his basis for ascertaining that the company is receiving

its proper freight revenue for shipments transported over its rails; all of the information which I have outlined as being useful to the Transportation Department is of interest to the auditor, necessarily so. He goes further, however, and interests himself in the rate

charged for transportation of freight, as shown by the way-3378 bill, sees that the proper rate is assessed which entails the proper classification of freight—that proper freight charges are collected by the company's agents, and that all accounting regulations for the transportation of freight and its accounting, are taken

care of.

The waybill also furnishes the basis for practically all of the company's freight statistics; it is a history of the company's freight movement in detail. It is made out by the station agent, or his force at the station where the freight is received by the Company from the shippers or turned over, that is from the shipper or turned over by a connecting line or perhaps on the company's rails intermediate, where re-billing is necessary; it is made by the station agent, and in any event, it accompanies the freight to destination, except in a few instances, and becomes a basis upon which the receiving agent delivers the freight and assesses the freight on it.

Those are, in a general way, the functions of a waybill.

Q. Having digressed to get an explanation of waybills, into the record, I wish you would proceed with your method of work?

A. I want to add to that:

The waybill should give, after revision by the auditor, before it is finally taken into the company's revenue accounts, at 3379 headquarters, a pretty complete history of the shipment.

By the way, I omitted another function that the waybill has, while that is an accounting function, it affords the claim agent a basis for his investigation of freight claims.

Q. How does it find its way into the auditor's office?

A. The practice varies on different roads; on the Iron Mountain, the auditor gets an impression copy of the waybill, of all waybills made by his own agents, when the waybill be headed to a station on his own line or headed under a through billing arrangement, to a station on another line, he gets an impression copy or he takes pains to see that he does if it is not sent in; he gets an impression copy of all waybills in which his line performs the intermediate haul, when the waybill goes over his rails, but originates and and terminates on other lines. He has in his possession, the original waybills covering all interline shipments, made on other lines to stations on his road; those waybills resting on his road are in his possession, those originating on his road, destined to his road, and over his road.

Q. The general auditor's office then, should contain waybills showing the Inovement of freight—every ton of freight—on its line?

A. Yes, sir.

Q. Either the original or an impression copy of the original, as the custom might be on different roads?

A. It necessarily must, if the company is to get revenue for the transportation of freight. Q. Attach that copy as Exhibit B-1.

(Exhibit B-1 is set forth in Volume 9, page 5851.)

A. I will do so; it was those impression copies, or the original waybills, as the case might be, that we started out to locate, covering the cars we had listed in these local trains, and speaking roughly, I think there were approximately 24,000 full carloads on those trains, in the month of October, 1907, making it necessary for us to locate about that many waybills. I have not made any special count of it, except by the size of the abstract sheets, how full they were, and the

number of lines, a line being given to a car.

When we set out locating the waybills, these I refer to, we first had recourse to reports of cars weighed on the company's track scales. Those reports are rendered to the general auditor by the weighmaster, in charge of scales. The scale reports on the Iron Mountain road, and the Missouri Pacific too, give the number of the car, the name of the station from which it was waybilled, and number and date of the waybill, and the station to which it was billed.

Now, the station from and to are not in all cases—accurate—I speak now entirely of the heading of the waybill; we proceeded on the theory that in accordance with the usual practice, the 3381 cars received scaling service, if possible, at the first track scale they crossed.

Q. Explain what you mean by "scaling?"

A. The scaling consists of placing a car on the track scale, and ascertaining the weight of the car and load, and then on the scale report, that is shown as the gross weight; the stenciled tare weight, meaning the weight of the car itself, as stenciled on the side of the car; that is deducted from the gross weight, and in that way, the

net weight of the contents of the car is arrived at.

A car is usually scaled at the first track scale it passes over—not always, because it is not always practicable to do it. We proceeded on that theory, if we found it, al-right, we had the waybill. If we did not find the car on the first scale record, we followed it on the route that it would possibly traverse; it may have gone more than one way, over Missouri Pacific and Iron Mountain rails, and we examined the reports from every scale that it could have passed and endeavored to find who had made the waybill for it.

Failing to locate the waybill made to cover the cars in that manner, we next had recourse to the waybills made at the station where the conductor said the car was picked up by him, on the chance that

the car might have originated there.

Failing to find that the case,—which would indicate that 3382 the car had not originated there, but came from another point, we examined the waybills made at Missouri Pacific and Iron Mountain stations beyond the point where the car was picked up in the direction from which it moved, endeavoring to find the waybill for the car in that way.

We also examined the junction reports made by the Iron Mountain agents, of cars received from or delivered to connecting lines at

junctions which the car could have passed on its journey, should it

come from beyond the station where it was picked up.

Those junction reports—passing reports I believe they are called in the Iron Mountain auditor's office—give the car number and initial, number of and date of the waybill covering the car, billing station and station to which billed, also the car's contents, although that was of no moment to us; we were simply looking for the waybill number.

Some cars were found in that way. Failing to locate the cars in that manner, we had recourse to the auditor's abstract of waybills known as freight journals. On these freight journals, the auditor's office force compiles a record of the waybills according to heading; by heading, I mean, say for instance, from St. Louis to Malvern, the shipment might be destined to Hot Springs, but would be headed to Malvern, but the waybills to the stations on the Missouri Pacific

and Iron Mountain systems, the waybill headed to those stations would be charged to the agent at that station, and it is necessary for him to collect the charges there. For that reason, the auditor groups these waybills according to the sta-

tions to which they are headed, and again groups them according to the stations at which they are made, in rough geographical order. We had reference to these journals, which in a great many instances show the number of the car, enabling us to locate the way-

bills covering some of the cars we had on our sheets.

I might illustrate how we did that; if we had a car on our abstract sheet, which the wheel reports showed had its final destination at Little Rock, we might or might not find it on that record—in theory perhaps it was headed there; say a car was picked up at Newport, I would endeavor to find that car weighed on the Newport scale; failing in that, I would try to find it weighed on the Little Rock scale; failing in that, I would look at the billing at Newport station where the conductor got the car. Failing to find it there, I would proceed up the main line of the Iron Mountain towards St. Louis, and over the various branches of the road, looking for way-bills; perhaps we went over the Missouri Pacific, if in our judgment we thought the commodity could have come from Missouri Pacific rails. Failing in that, we would go to these journals—I would go to the Little Rock Journal in this instance, and look to the group from Newport and see if we could locate that billing. Fail-

from Newport and see if we could locate that billing. Falling in that I would go up north of Newport, looking through the journal for points beyond Newport. You can readily see how the grouping of waybills in that way, in geographical order, made it practical to trace the car back over the read it might have been traversed on its road to Little Rock. Of course, it is not always true, that the information given by the conductor that the car was destined to Little Rock is right; sometimes, that was a mistake, and we had to go to the journal south of Little Rock, all the way to Texarkana and Alexandria, or west to Ft. Smith, to find its desti-

nation.

All of these methods were an index to the number of the waybill

covering it, which enabled us to go to the waybill for the tonnage

of any car and classify it accordingly.

On inter-line business, that is business which the Iron Mountain and another road handled jointly, we referred to the settlement sheets, settlements of account rendered by the foreign lines to the Iron Mountain; that was on business forwarded by the Iron Mountain to those lines.

If we found a car in a train and the conductor said it was destined to San Francisco, we looked on the Southern Pacific settlement sheet, knowing that was the way it would go, and in that way got the waybill number, and went back to the waybill for our informa-

tion as to the tonnage, or if we found the conductor said it 3385 was going to New Orleans, the natural inference was it was turned over to the T. & P. at Alexandria—the Texas and Pacific. Failing to locate it on the junction report, we went to the account rendered to the Iron Mountain by the T. & P. That is

account rendered to the Iron Mountain by the T. & P. That is what we refer to as the settlement sheets, such giving an index sheet to the waybill covering freight that the Iron Mountain has the originating haul on, or where the Iron Mountain had the inter-

mediate haul between two roads.

We found too, in numerous instances, that the seal protection on the car, as shown on the conductor's wheel report, was a direct index to the station which had billed the car, and we were enabled in that case to go direct from the wheel report to the waybill covering. Explaining what I mean by seals on cars, it is customary to protect the doors and all the openings, not only the doors but all openings on all closed cars, with either lead or tin seals; that is, the door is sealed with a lead impression, seal, or tin seal, which locks the door, and in closing the impression seal, the impression on the lead seal, the station agent will impress on that seal, the number of his station, the seal die would have that number on it. For instance, in a local freight train running between Wagoner and Van Buren into Arkansas, we find a car on one side of which was a seal,

#4160, reported by the conductor, that being the number of Wagoner Station in the Company's official list; that would indicate to us, that perhaps that car had been loaded at Wagoner; we would go right to the Wagoner billing for a few days previous, and locate the car in a great many instances; a car might have been sealed 3930, Van Buren Station; we would go through the same process in the Van Buren billing, to find the waybill that covered the car. Very often, various seals, placed on the cars at different stations, were on various openings of the car, indicating there was only one door opened at the last loading station. When we found that, we went to all stations whose seals were on the car, unless they were so remote it was evidently a very ancient seal.

Having located all the waybills—I say all, there were some few we didn't—having located the waybills to cover the cars in this manner, we classified the tonnage, the weight of the shipment on each waybill, as between state and interstate; we made a sub-division of interstate into trans-state and interstate, but generally speaking,

we classified it between state and interstate. We did that as we located each waybill, so there was nothing to do but to lump it all, at the end of the process.

Q. You say there were some few of the waybills you didn't locate out of the month's business? How many were there?

3387 —. I haven't the exact figures here, and I would like to refresh my memory before I make a positive statement; not a great many though.

Q. Will you give us the exact number?

A. I will, yes, sir.

Q. Go ahead with your explanation.

A. Having classified our tonnage in each car between state and interstate, in the manner I have described, we proceeded to make ton miles out of it. Our abstract sheets show for each car, at that stage of our work, the number of the car, where it was picked up, where it was set out, its weight in pounds, divided between state and interstate. We took the information given, which was derived from the wheel reports as to where the car was picked up and set out, and figured the mileage between those two points; that is the mileage which that car and its contents travelled in that local freight train. We placed that mileage on our sheets, deriving it from the company's official station lists,—that typifies the process. Of course, it was an immense amount of work.

We then, to cut directly to the result, multiplied the weight of the cars' contents by the mileage made in that train, and in that way, got the pound miles the pound miles of state and interstate traffic on those trains; I speak now entirely with reference to the car-

load business.

We reduced that by a single calculation, of course, to ton miles, that being, of course, the accepted unit for statistics

of that character, being the easiest way to handle it.

That explains how we got the ton miles, state and interstate of carload business. Those trains also carried less than carload business, and as I stated previously, we made no attempt to classify that between state and interstate, and for a very good reason—at least it appeals to me as such. To begin with, although that had nothing to do with the reason, I think Exhibit 26 shows in the month of October, 1907, the month we were interested in, the total L. C. L. tons, state and interstate, and trans-state, handled in Arkansas by the Iron Mountain was but 5.77% of the total tons, and expressed in ton miles, that traffic was but 4.29%. The last line of Exhibit 26, shows those figures in columns 2 and 7; but the principal reason for which we determined not to analyze the contents of those cars, was this: We could not be at all sure that we had located all the waybills for those cars, and not being able to locate them all—I speck of L. C. L. cars—we did not try to locate any.

The reason it is impossible to locate all of those waybills—perhaps impracticable would be a better word—is this: It is a common occurrence at way stations out on the line, and I think it is a

pretty good plan from the agent's point of view, to make waybills for his freight that is to go forward by local train or

any other train, but in this case, for local L. C. L. freight, before the train arrives; he does that so he may go out on the platform, help load the freight, help unload it, check it in and out, be on the ground to watch for damage to freight, and make the necessary notations on the waybill. He is busy on the platform and should be, unless he has a very large station with assistants to attend to this; he makes his wavbill beforehand for that reason, and he takes his impression copy for the auditor's file beforehand for that reason, and having taken the impression, he does so without the car number on the waybill, because he cannot know in advance of the arrival of the local freight train, what car his package freight is going to be put in. Therefore, he omits necessarily, the car number from the way-bill and from the impression copy; the alternative is, to make out the waybill, take the impression of it and let the local train stand there while the impression copies are being made, and I know from examining the original waybills in the Burlington statistical matter I spoke of a while ago, that of L. C. L. waybills made at way stations, fully 50% are without car numbers, unless it be a station of sufficient size to originate a carload of local freight, which would be load-

ed before the local came in. As we went through the impression copies furnished the auditor at the time, naturally the waybill had no car number on it because of that. Therefore, we did not attempt to classify any L. C. L. freight between

state and interstate.

Q. How did you classify that?

A. We had worked up, as I explained previously, the car miles made by these package or L. C. L. cars, getting the total of that figure, we multiplied it by four, that being the average loading of merchandise cars in the Cotton Belt test, as on file here as Exhibit for the month of October, 1908.

Q. Multiplied by four-just give the figures to show where you

got that four?

A. I would like to amend that statement I got mixed on it; that figure is shown in our Cotton Belt freight statistics, exhibit for October, 1908, and is the result of calculations based on Mr. Kimbell's Exhibit-19 and 30, simply reducing the figures to the average loading for that class of car.

Q. That is, it is loaded four tons to the car?

A. Yes, sir, we took that figure which represented the average loading of such cars on the Cotton Belt and applied it to L. C. L. freight car miles on the Iron Mountain.

When I say average foading, the assumption there is that that loading was in the car upon an average, every mile that the 3391 car travelled, while it might have had ten tons to start and

one at the end, still the average loading was that.

Q. From your examination of the Cotton Belt and Iron Mountain waybills, what is your opinion as to accepting the Cotton Belt figures and applying them to the Iron Mountain? Is there any differences in the conduct of that business between the two roads?

A. That would be a matter of opinion purely, because as I said, we did not analyze these Iron Mountain merchandise cars; we figured

on the Cotton Belt basis, which was the result of an actual test; Mr. Kimbell's men rode the train. It appears to me that with the grater density of traffic on the Iron Mountain, with proper economical management on account of that density, that it would at least load the cars as heavy as the Cotton Belt loaded them.

Q. If there was any error, it would be an error against the State?

A. Yes, sir. I had not quite finished my explanation of what we did. We got a total figure of L. C. L. ton miles on that basis, L. C. L. car miles, compiled by us as I have described, multiplied by this average figure of four, which was deduced from the Cotton Belt figures prepared by Mr. Kimbell, that gave us the total L. C. L. ton

miles exclusively for local trains.

We didn't know how much was state and how much interstate; we took Mr. Roth's exhibit 26, which shows that the total L. C. L. ton miles of state traffic was 459,204, that is line 8, column six, Exhibit 26, and we used that in making our Exhibit I. Every ton mile of L. C. L. intrastate freight shown in this exhibit, being placed on the local trains, and deducting that figure from the figure arrived at as I have explained, the car miles multiplied by four, said that the balance then was the interstate L. C. L. ton miles on the local trains.

I think that when we place all of the state L. C. L. ton miles on the local trains, we have worked an injustice to the state business, in

compiling our statistics based on Exhibit I.

Q. What information have you on that, which makes you think

you do an injustice to the state business?

A. My reason is this, that it is practicable to haul state freight in Arkansas a maximum of 305 miles—I think that is the correct figure, and the average local train run is about 1/5th of that, and I cannot conceive of railroad management that would permit package state freight, moving that distance, to work its way along in five local trains when it could move first in the local and be hauled in a through train between division points and then be peddled out.

Q. You think there was some L. C. L. freight moved in

through trains.

3393

A. Yes, sir, supposing we had a shipment say from McGehee, on the Valley Division, 102 miles south of Little Rock, to Van Buren, I don't think it is conceivable under the orderly operation of a railroad, for that freight even if it passed Pine Bluff in the second local train, to pass Little Rock in a local; they would certainly unload it at Little Rock and put it in a Van Buren car and then it would move in a through train. At least, that would be good handling, in my judgment, of the shipment.

Q. What does the Cotton Belt test show on intrastate L. C. L.

freight on through trains?

A. Approximately 20%, as I recall it. Exhibit #20 shows commercial ton miles L. C. L., that means revenue freight—I have been talking about revenue freight all morning—on the through trains.—this is all L. C. L.—80%, and on the local trains, 20%.

Q. Ten the Cotton Belt carried 20% of L. C. L.

A. Of all its L. C. L. business.

Q. On the local trains?

A Yes, sir.

Q. L. C. L. state business?

A. The exhibit says commercial ton miles L. C. L.; the segregation is not made there; ton miles, L. C. L. of revenue freight, state, 17% on through trains and 83% on local trains; those figures are taken from Mr. Kimbell's Exhibit #20. 3394

Q. Then instead of having 83% of the L. C. L. intrastate on the local train, you have carried 100% in the Iron Mountain exhibit, which you have made?

A. Yes, sir, we have loaded it all on to the local.

Q. And for that reason, you think there is some figure, whether it is 17% or some lesser figure of that freight, which should have been carried and was in fact carried, on through trains?

A. Yes, sir.

Q. But owing to your inability to get at that accurately, you have

put the full 100% on local trains?

A. Yes, sir. It resolves itself into this, if that is an error and you take any of that state freight off the local and put it on the through train, and if by our estimate of four tons per car mile you give the local all the L. C. L. it carries, you would have to give the local train interstate ton miles to make up for the state you take off.

Q. Whatever error there is on that, it is against the state business? A. Yes, sir, because you put more on it than is there, and our

figures show that is the most expensive train.

Q. Proceed with the balance of your work there?

A. Having got at the ton mileage of local trains, carload and less than carload, interstate and intrastate, in the manner I have described, we deducted that figure,—that is this first column on Exhibit I, where it refers to ton miles, from the total figures 3395

of exactly similar character shown on Mr. Roth's Exhibit #26, those total figures assuming to show the total traffic on all trains for that period, for the period for which we investigated, deducting our figures from Mr. Roth's total figure, we said that the balance of the ton mileage was on the through trains, and we have shown such figures in the proper column of Exhibit I.

The next item on Exhibit I, that was a matter of investigation by myself and the gentlemen under me, comes under the head of

mileage statistics.

The first item is car miles: I explained that at the outset, how we had to list each car-each loaded car- on our abstract sheets. and place the mileage against that, in order to make ton miles of the freight in the cars, and how we had figured the mileage of L. C. L. and empty cars from the wheel reports, the distance between picking up and setting out, as shown by the conductor's reports, reduced to miles by us on the basis of the company's official station I used those figures incidentally, in getting our ton miles except as to empties, so it was just a matter of totalling our sheets and taking off those figures and that total is the car mile total. That includes the total carload mileage revenue and Company freight,

total L. C. L. mileage and the total empty car mileage. It includes the mileage of any work equipment that may have been moving in these local freight trains, although there was very little of it.

Q. Take your next item.

A. The item of engine miles was figured on the basis of actual distance traveled by the engine, pulling the train between the stations, indicated on the wheel report.

When we had the wheel report before us, I stated that it showed the stations from and to which the train ran. That, together with the Company's official station list, gives us the mileage made by

engines pulling local freight trains.

The caboose miles, it will be noted on Exhibit I, are less than the engine mileage. As an ordinary proposition, every freight train on the road, every train run, has a caboose as well as an engine, but there is a difference of some ten thousand miles, the caboose being less than the engine mileage; that is the caboose mileage on the mixed freight and passenger trains run by the Company during

We are informed by a gentleman whose duty it is to compile statistics for the transportation department, statistics of that nature, that in their total equipment mileage figure, they include caboose miles in passenger equipment, on the theory that they serve the purpose of a baggage car, and that the mixed train could

3397 very well get along without a caboose, but that it would have to have a baggage car.

Q. You just accept that classification?

A. Yes, sir, for this reason, as you will see, we went later on to apply these local train figures against their total figures, and for that reason, my figures had to comply with the method in which they figured theirs. With that difference, caboose miles are figured

on exactly the same basis as engine miles.

Train Miles in the case of the Iron Mountain-Local freights for October 1907—were synonimous with engine miles, for the reason, as we satisfied ourselves by checking of the wheel reports and dispatchers' sheets, that no local trains or mixed trains were double headed during that period,-that is, run with two engines-there were some dead engines, that is, engines not in service or without steam up, hauled in local trains, but that was not actual service movement as far as that train was concerned; it was just like any other Company freight; there was no double headers for that month, and therefore the train miles would be the engine miles.

Having ascertained the train, engine, freight car, and caboose miles of the local and mixed trains in the manner I have described, we deducted that figure or those figures from like totals,-that is from the totals of figures of like character in the company's sta-

tistics, covering all the trains, the result necessarily being to show the balance as the train and equipment mileage of the through train.

I might say in that connection, that those total statistics are compiled by the Transportation Department of the railroads, by

accounting districts, sections of the road, and they so report to the general auditor, and that a given number of those accounting districts make up the mileage in the State of Arkansas, the border districts co-inciding or running with the state line, and we totaled the district figures to get the total for the state, and balanced it in that That is the way we got our figures from which we deducted our compilation to get at the through trains, train and equipment

mileage. The number of trains run, as shown on Exhibit I, was arrived at this way; as I said before, we had abstracted the wheel reports for all these trains, all these local and mixed trains, and satisfied ourselves that those we had listed were all trains by reference to the records that I have described. We counted those trains from our sheets, and in that way, got the number of local trains run; then, we took the dispatcher's sheets, on which there is a column headed "through freight trains" and we counted the through freight trains

for the month in that column on all dispatchers' sheets.

Now, there were some trains in that classification, which as I explained before, according to our ideas, were not 3399 through trains, but local trains, and we had determined they were local and so classified them, and so counted them with our local trains. Those trains we deducted from the through trains marked on the dispatchers' sheets and got the actual through trains; that is how those two figures were obtained,—the number of trains run.

The number of cars handled in and out of terminals, was as-

certained by us-

Q. This says "terminals where yard engines are maintained?" A. By terminal, I mean a station at which there was a yard engine maintained, the expense of which was charged, of course, to

yard expense in the company's accounts.

We were furnished by the Transportation Department of the Iron Mountain, with a list of the stations at which switch engines were maintained during October, 1907, and my reason for selecting those points and no others was this: If a train came along and set out a car the switch engine was there and took the car off, and if a train came along and picked up a car, the switch engine had undoubtedly prepared that car for picking up and delivered it onto the passing track or wherever the proper place was, and those switch engines were there not only to do industrial switching in that particular yard, but to serve passing trains in that way,

and passing trains could only be so served where there was a 3400

switch engine kept for that purpose.

Having been informed by the transportation department of the road where these engines were in the service, we took the wheel reports for the entire month, of all through and local trains running into and out of those terminal- or passing them on through, every time we found a car set out at an intermediate terminal by a through train, we charged that as terminal handling of one car by through trains; if we found a car set out by a local at one of these stations, we charged that to the local; we charged that as a car handled by the yard engines in terminals for local trains, if they picked up a car there, either class of train, through or local, we charged that to them; there was that much service rendered them, expressed in terms of cars handled. Where a train left a division terminal, whatever was the terminus of its run—say a through freight train of forty cars, we charged that through freight train with forty cars out of that terminal; if it took forty cars into the other end of its run, we charged it with forty cars into that terminal. Wherever a through train or local train set out a car at a way station, where there was no switch engine, of course, there was no switch engine expense incurred; that was that much more expuse of that particular train, and we did not take into account such cars, only where

engines were kept; that is how those figures were compiled, covering the entire month and all the trains.

Now, that covers all the basic figures in that Exhibit I; on the Iron Mountain, the percentages and other figures shown are the result of internal calculations based on figures I have explained the compilation of. In the case of the Cotton Belt, still on the freight side of the house, their statistics being for October, 1908, the ton miles, car miles, caboose miles and engine miles shown in our exhibit, were obtained from or based on, Mr. Kimbell's Exhibits 19 and 20.

The number of trains run, both through and local, was furnished me personally by Mr. Kimbell, Assistant General Auditor of the Company, and was obtained by him at my instance, at my request, from their Transportation Department, whose records are kept in Tyler, Texas, and were not accessible here. The figures furnished

Mr. Kimbell were turned over to us.

The number of cars handled in and out of terminals, was worked up on the same basis as the Iron Mountain figures, except at the stations at which switch engines were maintained, that was determined from a circular in Mr. Kimbell's possession, which gave that information, and we agreed on that point, I think. And the basis of our figures was not the wheel report, but a copy of it made by Mr. Kimbell's employees, in getting together his Exhibit #19. It served our purpose amply as well; I saw no reason to doubt

its accuracy, and so adopted it.

The figures were compiled in the case of the Cotton Belt generally, by Mr. Speed, an employee of the Cotton Belt office whom Mr. Kimbell assigned for the purpose, Mr. Wright and myself, my share of the work being very small. We merely discussed ways and means, and I went back once or twice to see that my instructions were being carried out; the figures made by Mr. Speed and Mr. Wright were agreed upon, I think, and the other figures shown in Exhibit #P, are the result of calculations based on the figures I have referred to.

That takes care of the method of obtaining the figures shown on Exhibits I and P. There are some other figures in these exhibits, which Mr. Wharton referred to in his testimony, as having been

gotten by me or under my supervision-

Q. Take those up and explain them.

A. The item of mileage of yard locomotives, which is given on page 2 of Exhibit K is 130,150 miles, was taken direct from the company's statistics; the figures were furnished me by Mr. Aoumock, who is chief statistician in the office of the car accountant of the Iron Mountain road; they were furnished to me as being the mileage of switch engines, compiled on the basis laid down by the Interstate Commerce Commission, and exclude, I am informed and as I believe to be correct, the mileage of entire switching performed

by local freight train engines out on the road, at way sta-

3403 tions.

Wages of road enginemen and trainmen, shown on page 5, Exhibit K, amounting to \$29,229.30 for local trains, that includes 75% of the pay of mixed train crews, that being the basis adopted by the Company reflected in its figures submitted here for the segregation of mixed train expenses between freight and pas-This figure, \$29,229.30, wages paid local freight train crews, and proportion of wages paid mixed freight train crews, was arrived at by us, by myself personally, in the last analysis, by examining the time books of the railroad company in which an account is kept with each individual employee on each division, showing the service performed by him each day, local freight, through freight, passenger, switching, etc. Those time books were sent in from division headquarters of the road for our convenience, and We had before us copies of were examined by us in St. Louis. the company's contracts with its trainmen, and were thoroughly informed on the subject of trainmen's wages before we began the investigation, and our figures are the result of the compilation of the mileage and time allowed the men in local freight train service, as shown by the time books, applied to the stated rate of pay, which by the way, is also indicated on the face of the time book for each class of service, and the total of the amounts so obtained for each

train for the month, gives us the figure for all the trains in

3404

I might say that our guide—there is something there that requires explanation-our guide to the employees in the time book was, to begin with, the wheel report; the wheel report showed the engine number; we could locate the engineer on that day by his engine number, the engineer's time being kept in separate books, showing that on that day, he ran on engine so and so; sometimes the train number was given, sometimes not; it should have been given; but in many cases it was not. That located the fireman for us in the same way, in many instances; there were few cases where the engine number did not appear opposite the fireman's name; in those where it did not, we assumed that the fireman made the same time as the engineer; it is true that he might have made more or less, but we assumed that he made the same time, and was paid at the standard rate of pay for the class of engine he was firing.

We located the conductor by name, his name appearing on the wheel report; we located the conductor by name, found what his

day's pay was, and charged it to that local train,

The company's contract calls for three brakemen on local freight We located the brakemen in the time books by the conductor's name; as a usual thing, they were shown as running with a certain conductor; where that information was lacking, as it was

in some instances, we assumed that there was hardly any-3405 thing that the brakemen could do on the train that was chargeable to the train service, when the conductor would not be present, so we gave them the conductor's time, with the

brakeman's standard rate of pay. I cannot conceive what the brakeman would be doing in the train service except under the supervision of the conductor. In that manner, we came at our local

freight train figures.

Those figures were applied against the total wages of enginemen and trainmen, shown by the company's books, speaking of Arkansas figures always, for that month, and the percentage which the local wages was of the total for the six months' period for wages of enginemen and trainmen was obtained, the figures being shown on the company's books; that is, we divided the six months' figures on the basis of the actual location of wages for the month of October, assuming that the service would be relatively the same, and the amount of wages would be relatively the same.

Then we have loss and damage of freight, which I think is the We examined the vouchers, and where necessary, the claim papers on file in the office of the auditor or freight claim agent—on file in the office of the auditor, for all loss and damage freight claims any portion of which was charged to the State of

Arkansas by the Railroad Co. during October, 1907.

We examined the voucher for information as to whether the freight lost or damaged and so paid for, was state or interstate freight; information as to the movement of the freight 3406 and necessary data to so classify it was given in those papers. In fact, we examined the claim papers. The necessary basis for a claim is the paid expense bill or bill of lading, which would still further give it, and copy of the waybill would again give it, and in many cases, the youcher gives it, and in that way we ascertained

those figures. Q. That was the actual amount paid during the month?

A. Yes, sir. Q. How did that conform to the amount paid during the six

months' period?

A. In total, the charge for loss and damaged freight,-I speak now of the total state and interstate together, for the month of October, 1907, shown by the exhibits in this case, was \$19,927.58. but \$72.42 short of \$20,000, and the figures for the six months was \$127,000 in round figures. That is just a trifle over a thousand dollars a month more, on the average, than the October figure was. October is pretty nearly one sixth-

Q. It lacks nearly \$1,000 in round numbers, of being one-sixth

of the total of that item for the six months' period?

A. Yes, sir. On the Cotton Belt, taking up the roads interchangeably, as I strike each class of items-loss and damage to freight figures were arrived at from the company's records, in practically the same manner as that I have described on the Iron Mountain.

The mileage of yard engines, shown on the Cotton Belt statement, page 2 of the exhibit, namely 7507 miles, was furnished us by Mr. Kimbell, being secured by him at our request from his transportation department at Tyler, Texas, where such records are kept. The road enginemen and trainmen's wages, as is already explained, is an actual division of that expense between local and through trains for the month of October, 1908; it was made by the company, Mr. Kimbell's test, and we used his figures; I just mention that because it has already been explained on the Iron Mountain.

On the passenger side, the only figures there that was compiled by me, that I think need explanation as to the method of their com-

pilation, are the carmile figures.

Car miles passenger—speaking of the Iron Mountain now—used as the basis for division of expenses of passenger service between coach, Pullman, mail and express service, are the result of the analysis of the Company's regular statistics, the mileage of baggage, dining and parlor cars, owned by the Railroad Company, being included by us in the mileage of coaches.

We did that, because we considered that these baggage, dining and parlor cars were either passenger carrying cars or auxiliary to

the passenger cars, as they necessarily are.

The wheel reports of the passenger train conductors are considerably different from those of the freight train conductor; 3408—as a matter of fact, they only give information in the rough

as to the cars they haul. Of course, they give the engine number and so forth, the cars they haul, and where they haul them from and to, the reports of the passenger train conductors showing the equipment of each train and from and to what points it was hauled, were examined by us, for all passenger trains hauled in Arkansas on the Iron Mountain for October, 1907, and the car miles of each class of equipment obtained therefrom. It is the same principle, applying the mileage to the haul between the points indicated on the wheel report, our analysis in detail agreeing in total with the company's statistics; that is, their classification did not have quite the sub-divisions we wanted; we took the wheel reports, showing what class of equipment each car was, and we re-analyzed these figures and balanced it against their totals, in that way; they lump together-I forget the exact classification, but it is not as detailed as ours; it includes in one classification some items we have set out separately.

Q. But your detail corresponds with their general statements?

A. Yes, sir.

In making our analysis, we have divided the combination cars used in two classes of service, on the basis of the lineal feet of floor space ordinarily used in each class of service, namely, mail,

409 baggage, express or passenger car.

The number of lineal feet used in mail service, or which the Government was entitled to use, under its mail contracts, on each road or train was furnished us by General Mail Agent of the Iron Muntain Railroad, Mr. Mack; the number of lineal feet of lineal space ordinarily used in express service, or which the express company was entitled to use, was furnished us at the request of the railroad company, and along lines laid out by us, by Mr. Guentsch, General Superintendent of the Pacific Express Co., which operates over

the Iron Mountain Rails.

The number of lineal feet of space used in baggage and passenger service,—I am excluding now for illustration's sake, mail and express where we had actual figures or approximately so as to the space used, or which could be used,—the number of lineal feet of space used in baggage or passenger service, was estimated by us in the case of combination cars, carrying no mail or express, as 50% to each class of service; that is, in that car, that was half coach and half baggage, or partly coach and partly baggage; it was there for two purposes, to haul baggage and transport passengers; if there was two or three more feet in the baggage space or in the coach space still in our estimation the car ran 50% and 50% for passenger and baggage.

3410 The combination cars carrying baggage, mail and passengers, these we used for the mail, the lineal feet of space in the car which Mr. Mack said would be used for the mail service, and divided the balance baggage and passenger, half and half.

The same was true in the case of baggage, express and passenger; we set out the definitely known express space, and divided the bal-

ance half and half.

Cars used exclusively for baggage or exclusively for mail or exclu-

sively for express, were charged direct to each service.

Cars used generally for baggage and express, were charged half to express service or the part to which it was entitled, whatever it might be, as advised by the express company, and the rest was

charged to baggage.

Illustrating what I mean by that in this way, take a car running 300 miles, and determining on the basis I have outlined that half of it would be charged to express and half for baggage, that meant in our statistics 150 express car miles, and 150 baggage car miles, half the car the whole distance for each service, or take a car, the combination car, running 300 miles, used generally for baggage, express and passenger service, and determining on the basis I have outlined, that one-third of the space in the car should be assigned to each class, that meant in our statistics, 100 car miles passenger, 100 car miles baggage, and 100 car miles express, one-third

3411 of the car three hundred miles.

On the Cotton Belt passenger statistics, I made figures personally from wheel reports, which were sent in for me from Tyler, Texas, and while I did not have there the information that I had on the Iron Mountain as to the mail routes and express routes, I consulted with the employees of Mr. Kimbell's office, who were familiar with the matter, consulted the equipment guide, saw what were mail and express cars and so designated, saw what the conductor said they were, used for, mail and express or baggage and express, and in

that way, classified them. There were so few combination cars that I contented myself with that method of classifying them, which I

believe is very nearly actual.

One other item that I had overlooked in going through this matter, as distinguished between it and the figures in Exhibit K, Mr. Wharton referred to a consultation in which we jointly determined on treating the engine as two and a half cars; I think it is under the head of maintenance of way, and as I recall it, he was asked if he weighed any engines; we didn't as far as I know. The basis for that figure, as I recall our conferences, and he conferred with me in the matter, was this:

A great many Iron Mountain engines are 12 wheelers, by that I mean, the engine would have four drivers on each side, mak-

3412 ing eight; two pony truck wheels, the pony trucks being the small trucks in front of the engine, making four more, which is 12, and the tank, or tender, as it is sometimes called, with eight wheels, making on an engine and its tank, 20 wheels; it is well known that the average box car has eight wheels; therefore, there are 2½ times as many wheels on the engine as on the box cars.

Some engines are ten wheeler—a great many in service in Arkansas are that way, but the relation would not be much disturbed

by deducting those two wheels.

That is what guided us in that, with some suggestions that I heard advanced by some very eminent railroad men along that line, in discussing contracts for division of expenses of maintenance of joint track, on the so-called wheelage basis; it was suggested that it was quite the usual thing to treat an engine as $2\frac{1}{2}$ cars, and that is practically the reason for the basis we assumed.

3413 By Mr. HILL:

Q. Are you familiar with the Cotton Belt test of October, 1908?

A. Exhibits 19 and 20, yes, sir.

Q. In what way is that made up, and wherein does it differ in its composition, from the test you made of the Iron Mountain for

October, 1907?

A. I understand—I have no personal knowledge on the subject—I understand from what Mr. Kimbell has told us, that the method of securing the information shown on Exhibit 19 was to place men on the local freight trains of his line in Arkansas, for the entire month, whose duty it was to examine all the waybills for all the freight carried on the train.

Q. You mean the local, or all the trains?

A. All the local trains, and make an entire record of the trains' performance as it is detailed in these exhibits, but in the case of the through trains, he posted men at division terminals, I understand, and had them perform that character of work there, obtaining information from the conductor as to any cars that might have been set out in transit.

3414 Q. Wherein would that means of information be different from making those reports from the auditor's office?

T. There is this dierence—in so far as the less than carload busi-91—813 ness was concerned, it was possible by Mr. Kimbell's method to make an analysis of that and divide the ton mileage between the various classes of state and interstate business, but in so far as the carload business is concerned, inasmuch as the men riding the trains and at division terminals, got their information from the way-bills, they were no better situated to obtain the desired information than we were, having access to the impression copies of those waybills in the auditor's office; in fact, it is extremely probable, that in a few instances, the information we got was more nearly actual for-I speak now of local trains—as far as tonnage was concerned, than that that was gotten by riding the trains, and for this reason:

That the men handling the waybills on local train, if the car had not passed over a scale, he would only have the billed or estimated weight, whereas, when we got hold of those things, in the majority of instances, those corrections had been made, and the actual weight

applied to the waybill.

Q. That should have been corrected before, it went to the

auditor's office?

A. No, corrected in the auditor's office; I a mnot positive about that; Mr. Kimbell's statement may have been adjusted to actual scale weights, but that point occurred to me.

Q. Mr. Kimbell, was that corrected in the Auditor's office, 3415 after your men had obtained the information from the trains?

Mr. Kimbell: It was, yes, sir.

WITNESS: On the item of wages, there would be no difference between the two statements. I am not clear whether Mr. Kimbell's figures are made direct from the time slips or time books, but in

either case, the result would be the same.

In the matter of fuel, I understand that Mr. Kimbell's figures were made in this way: That his enginemen took an estimated inventory of how much coal was on the tank at the beginning of the run, kept track of the coal received at coaling stations during the run, and also made an estimate—which I believe they were quite competent to do, knowing the size of the tank-the amount of coal at the end of the run, and in that way got at the consumption for the

We endeavored to approximate that on the Missouri Pacific in this way: We took the-we asked the Transportation Department-I made a request in person of Mr. Jewel who was Chief Clerk at that time to the General Manager or Assistant General Manager-I am not quite clear on that point which it was-I asked him to furnish

us the fuel tickets; it is the practice on most roads, and I understand it is on the Iron Mountain, to have the engineer sign 3416

a ticket for coal at the coal chutes, for the amount of coal delivered to them, so many tons; we thought those tickets would have given us a very close approximation of the actual fuel consumed, weighing the coal on the tanks at the beginning of the month and the end of the month, but those tickets were destroyed, not available, and we did not pursue that any further.

Q. That is, for your period? A. Yes, sir.

Q. I believe it is already in evidence, that you accepted the relative proportions between local and through as developed in Mr.

Kimbell's test on the Cotton Belt?

A. Yes, sir, I believe so. Mr. Wharton and I, in our consultations about that, construed Mr. Doddridge's testimony to mean that the fuel conditions would be about the same on the two roads, and, therefore, applied Mr. Kimbell's figures, or figures deduced from his, which show that the fuel consumption on the local, per engine mile, was about 31/2% in excess of the fuel consumption on through trains.

Q. Then the only practical difference in the method pursued between your test and Mr. Kimbell's, was that he carried forward his

test into a separation of the L. C. L .-A. As between state and interstate.

Q. Which as you explained yesterday you didn't do? A. Yes, sir. There are a great many other statistics here that we did not attempt to compile-shown on Exhibit 20, such 3417 as the dead weight-

Q. I am speaking of actual figures you reached; each of

you went to the way bills, that was the basis for both of you?

A. Yes, sir, in so far as the ton mile figures; the labor figures and fuel figures, that is a comparison between the two methods; there were other statistics which we could not get without riding the trains.

Q. Does Mr. Kimbell's exhibit show that he took the actual figures

on loss and damage to freight?

A. Mr. Kimbell's figures simply give you the total loss and damage in Arkansas, for the month.

Q. I mean a separation between state and interstate?

A. No, sir, I understand it was divided on the revenue basis. Q. You went ahead and made an actual division by investigating the claims actually paid?

- A. Yes, sir, and when necessary went to the claim papers.
 Q. How many cars were included in his month's test, including interstate, trans-state and intrastate?
- A. I don't know how many cars—I can tell you how many trains there were.

Q. I thought his exhibits showed.

A. Not the number of cars; I don't so understand; it gives the car miles.

Q. Have you got the number of trains?

A. Yes, sir. Q. How many were there? 3418

- A. It is not shown in Mr. Kimbell's exhibit, but it was furnished to us by him, having been obtained from his Transportation Department records at Tyler, Texas. The figure was 450 local freight trains, and 639 through freight trains, total of 1089 freight trains.
- Q. How many freight trains did you work up in your month's test-local freight trains on the Iron Mountain?

A. On the same basis, 1116.

Q. His included all trains and yours just the locals?

A. Our exhibit shows also the through trains obtained in the man-

ner I described yesterday; our local figure is 1116; the Cotton Belt local figure is 450; the Cotton Belt local and through is 1089.

Q. Mr. McPherson testified in this case, (page- 343-4, vol. 1,

printed record.)

"Strictly speaking, no part of the yard organization cost, nor of the service of switching engines, is chargeable to trans-state traffic.

"There is nothing to be done with trans-state traffic passing through the State but to give it straightaway movement. The trains must be broken up at these division terminals, incidental to taking off the state and interstate traffic, as may have its destination at such points, or, on lines radiating therefrom.

"To increase the efficiency of operation and give the potential tonnage to locomotives, other cars must be added and these may

of course, the physical handling of this trans-state traffic in these classification yards, and at times other trains may pick up trans-state traffic that has been set out because of blockade, embargo or some disarrangement of the orderly course of procedure, such as wrecks and washouts. This, however, is not due to any requirement of the trans-state traffic. It arises from physical conditions in the State of Arkansas; either from floods, casualties, or other disturbances of the orderly movement of businses."

Mr. Doddridge on page 12, vol. 2 of the prifited record, referred to trans-state freight being transported across the state as upon a

bridge.

I will ask you if you have made any investigation from the records, of the facts in regard to this theory upon which these gentlemen have spoken, as to trans-state business passing through the State as upon a bridge, and if you can, give us the results of your investigation upon the facts, as opposed to the theory upon that subject?

A. I have here a record of about three thousand cars, 1454 in October, 1907 and the balance, 1560 in March, 1907, a spring

month and fall month.

Q. Describe how you got at that movement and the result of it?

A. In endeavoring to see just how long it took this transstate freight to go through Arkansas, and how long it was on the company's rails, in Arkansas, in completing its journey

across the state, and how long it remained inside of the state, we had recourse to the waybills for what we thought were typical movements of that character of freight. That is, we took in the October month, billing from Texas roads, going to the Iron Mountain at Texarkana, and moving via Little Rock and Van Buren and on out into Oklahoma and beyond, destined to Kansas City points, in that territory or beyond.

We took the movement from Louisiana, crossing the state line some distance below McGehee, and leaving the state five miles above Van Buren, destined to Kansas City and points in that territory.

We took the movement from Memphis, via the Memphis division, main line and the White River division, the last terminal in the state being Cotter, going to Kansas City and points in adjacent territory.

We took the movement from beyond Texarkana, straight up the main line into Missouri, the last terminal in Arkansas being Hoxie.

We took the movement originating in Louisiana and moving via McGehee, Little Rock, Hoxie and into Missouri, and the movement originating at Memphis or beyond, moving via Bald Knob, Little Rock and Van Buren, and so out of the state to Kansas City and adjacent points. By the way, that movement from Texar-

3421 kana to Hoxie, if I said that was headed to Kansas City, that

was in error; it was to St. Louis.

We took the movement southbound from the White River Division, main line, Little Rock, and out into Louisiana by the way of McGehee, that being the last terminal.

The movement from Van Buren, coming from beyond, and going

out into Louisana through McGehee.

The movement coming down the Main Line from Missouri and

going off into Texas at Texarkana.

The movement from Missouri and beyond over the White River Division, Main Line and Memphis Branch, to Memphis and beyond.

We went to the billing without knowing where we were going to find the movement of the cars, abstracted all the cars for a period of fifteen days, then traced the cars into the first terminal in Arkansas, and out of the last terminal in Arkansas, most of them being very close to the border, because the only record we could get was at the last terminal.

The record we have of their movement is actual, it is taken from the wheel reports, showing the movement in trains into the first terminal, and the movement out of the last terminal; the inter-

mediate time was spent in Arkansas.

All those cars, on the movement from Texarkana through 3422 Van Buren, a distance of 298 miles, the schedule time for which movement, linking up the through freight schedules, without any terminal delay, is 28 hours.

Q. Where did you get that?

A. From the company's official time cards for the ordinary freight, The company classifies its trains between Red Ball, Green Ball and

ordinary, and this is the slow time.

On that movement, there were 100 cars, which consumed in total, 1477 days, on an average of 14.7 each; some of the cars might have gone through quicker, some took a longer time; in fact, our detail shows it did; it amounts to the same thing whether one car spent 14 days or one hundred cars spent 1400 days. The lost usage of cars is there just the same.

Q. What was the excess over the 25 hours which the cars visited

in the State of Arkansas?

A. 14 days—about 12 days, lacking 4 hours.

Q. They found the climate inviting down there on their trans-

state flight?

A. I don't know as to that; this is what the wheel reports show on the movement through Louisiana and McGehee and Van Buren, a distance of 256 miles, the schedule time for which, on the same basis as I mentioned, was 26 hours; a movement of 28 hours consumed in total 340 days, an average of 12 days per car.

Q. Without going into too much detail, what did that dif-

3423 ference in run make?

A. On the 1454 cars?

Q. No, on that particular item?

A. The difference was practically 11 days, less two hours.

Q. You don't catch the point I want; one would be delayed two days, and one 20 days, something of that kind, just give us a few instances of the two extremes, the longest and shortest and then give us the average, I don't want too much of the detail, but I want some of it.

A. One car got through in three days, and 7 cars got through in 4 days.

Mr. MOORE:

Q. Can you give us the number of the cars as you go along, so

they can be identified?

A. That detail is available; I cannot give it right now; I can get the car number, if you desire, the time, date and the hour in and out of the state and the train numbers; I have it but I haven't it with

I found one car consuming 3 days, 7 cars, 4 days, 3 cars taking

nine days; four cars taking 25 days, one car 43 days.

Q. Just give us a few illustrations, I just want to see how they

were running?

A. That is the movement between McGehee and Van Buren, which were the first and last terminals; the movement from Memphis and beyond, going out of the state through Cotter on the

White River Dixision, a distance of 240 miles, the schedule time for an ordinary freight train, the entire distance, is 23 hours.

I find 134 cars consumed 772 days, an average of five days per car.

Q. Against what is the schedule?

A. A little less than one day, 23 hours; we have one car that got through in one day, 28 cars that got through in 3 days, 12 cars in 9 days, six cars that took 14 days, one car that took 22; there were other cars.

Q. That is the division—we had some testimony that those grain

trains went through like greased streaks of lightning.

A. Yes, sir. I might say in that connection, in locating the billing for the White River Division, that is the division we speak of, for October, 1907, and on some of their local trains in the state, we found a great deal of that wheat moving on local trains.—I say a good deal, I haven't the number of cars, but it is obtainable from our memoranda.

Q. When that export wheat came through on local trains, it didn't go through like a greased streak?

A. No, sir, it couldn't when it got on that local run.

Moving from Texas, through Texarkana, and up the main line

through Hoxie into Missouri, a distance of 264 miles, I am giving the distances between the first and last terminals in the state, and not from state line to state line.

Q. Some of those cars might have gotten lost after leaving

the terminal?

A. Yes, sir, but these are pretty close to the state line, and I sup-

pose they got across.

264 miles, Texarkana to Hoxie, schedule time for ordinary freight trains, 27 hours, movement of 166 cars, consumed 932 days, five days per car, and between Texarkana and Hoxie are but two through freight divisions, through freight trains should run, Texarkana to Little Rock, and Little Rock to Hoxie. That would indicate to my mind that the schedule time of 27 hours for two through freight divisions, where five days were consumed by this number of cars, that they must have been in a yard some place, or a passing track.

Q. They would hardly be on the main track during those five

days?

A. Not if they ran any other trains.

Q. I understand the main track was about all this trans-state freight needed?

A. The figures speak for themselves.

The movement from McGehee, by Little Rock, and through Hoxie into Missouri, a distance of 221 miles between McGehee and Hoxie, schedule time for ordinary freights, 35 hours; 98 cars consumed 635 days, an average of 6 days per car. McGehee to Little Rock is one through freight division, and Little Rock to Hoxie is another;

the same remarks would apply there as on the Texarkana-

3426 Hoxie movement.

Q. Add a few of the shortest and longest movements as

you go along?

A. From Texarkana to Hoxie, where the average was 5 days per car for 166 cars, I found that made it on the schedule, got through in time.

Q. That was one of Mr. McCutcheon's onions?

A. I don't know the contents of the car now; I found 46 cars that got through in 2 days, 20 cars in 4 days, and 43 in 3 days, 14 that took 5 days, 3 that took 23, 2 that took 25, and 1 in 66 days,—

that car must have been in bad order.

On the movement from McGehee to Hoxie, 98 cars an average of 6 days apiece, I find 10 cars made that run in 2 days, 27 in 3 days, 18 in 4 days, 2 of them in 14 days, and the maximum is one car which consumed 56 days, and the one immediately preceding that, being 1 car in 34 days. The movement from Memphis to Van Buren, a distance of 305 miles, via Bald Knob and Argenta, schedule time 31 hours, 25 cars 195 days, average of 7 days per car; I find that out of those cars, that 5 took 4 days; that is the minimum, 4 took 5 days, 5 took 6 days in transit; the maximum was 1 car 16 days; ranging from 4 to 16 days or an average of 7 days.

I might say, in stating those averages, that we dropped the fractions; that really figures 7.8 to split hairs on the proportion; it

might really be called eight.

3427 Moving in the opposite direction, from north of the Missouri-Arkansas line, via the White River Division, via Bald Knob and Wynne and McGehee out into Louisiana, and beyond, a distance of 281 miles from Cotter to McGehee, the schedule time for ordinary freights is 39 hours; I find 138 cars consuming 930 days, or an average of 6 days per car.

Q. That is the greased streak of lightning road I believe?

A. That was the way export grain you refer to was handled, that is, if it was off the White River Division.

Q. I think there was some testimony that that was the route it

used.

A. I find the minimum was 4 days, 8 cars consuming that much time; 32 cars, 5 days; 38 cars 6 days, 31 cars 7 days, 9 cars nine days, 1 car took 23 days, moving southbound between Van Buren and McGehee, originating beyond Van Buren in Oklahoma or beyond and destined to Louisiana, a distance of 256 miles, schedule time 22 hours, I find 291 cars consumed 2004 days, an average of 6 days per car.

Q. That is on October?

A. Yes, sir, still on October; the minimum on that movement was two days, between Van Buren and McGehee, 2 cars consuming that much time; 28 cars 3 days, 73 cars 4, 41 cars 5 days, 45 cars,

six days, going up, 21 cars nine days, 13 cars 11 days, runs 3428 on up to 12, 14 days, up to the maximum of 32 days con-

sumed by one car.

The movement from Hoxie to Texarkana, originating in Missouri, destined to Texas a distance of 264 miles straight main line over two through freight divisions, schedule time in that direction, 24 hours; 216 cars consumed 670 days, or an average of three days per car, or exactly three times the schedule time—24 hours. In that movement, is included 14 cars that got through on schedule time, 86 cars took twice the schedule time, 76 that took three times, and 22 cars that took four times, speaking in round numbers; the maximum was one car consuming 19 days; that car was perhaps in bad order.

From Missouri and beyond, via White River Division to Memphis and points beyond, that should come from Cotter to Newport, on the White River Division down the main line to Bald Knob, across to Memphis, a distance of 240 miles, schedule time 24 hours; 258 cars consumed 823 days, an average of three days per car; in that movement, we find 55 cars that got through on schedule time, out of 258; 76 cars took twice the schedule time, 45 cars took three times the schedule time, 37 cars took four times, and the maximum time consumed was 15 says by one car; that is the October movement.

Q. Have you a summary of the October movement there?

A. Yes, sir, totalling it all, 1454 cars, averaging 6.03 days, in round figures six days; the schedule time averaging it all, would have been 1.1 days per car; it consumed almost five days in excess of the schedule on the average.

Q. I reckon those cars liked Arkansas pretty well, when 3429 they got down there.

A. That is the detail of the movement.

Q. I believe you stated you took those as you came to them? A. We took the trans-state billing to and from certain territories, with no previous knowledge of how the stuff moved; we took all the billing for the period we examined.

Q. It is not just selected billing, but all of the particular period,

from particular points?

Yes, say we took the Kansas City waybills to Texas, or from Texas to Kansas City, we took the whole bunch in that book.

Q. There was no selection, you just took the territory as you in-

vestigated it, as you found it?

A. Yes, sir, we took the tissue book and took all the waybills we found in that book, for instance, for the Kansas City territory.

Q. And without making any selection of the waybills?

A. Yes, sir.

Q. Give us the March movement, it was made the same way, I

presume?

A. Yes, sir, we took a spring month for comparison with a fall month; I find that while I have the recapitulation for March, I haven't it by cars: I have the summary.

Q. We will bring that in later. A. In March, I have a movement from Texas to Missouri, 3430 Texarkana to Hoxie on the main line, the first and last terminals being Texarkana and Hoxie; the distance is 264 miles, and the schedule time is 27 hours on ordinary freight. We found 127 cars which consumed a total of 449 days, an average of 31/2 days. I see this is carried out to fractions here; to make it consistent, with the other, I will drop those and make it three days. Q. If you have the fractions read them into the record.

A. The movement from Louisians resists to the record.

The movement from Louisiana points to St. Louis and beyond, McGehee being the first terminal in Arkansas, the cars travelling through Little Rock and up the Main Line to Hoxie, which was the last terminal, a distance of 221 miles-shall I repeat all these schedules?

Q. Yes, give it in full.

A. We had 104 cars which consumed a total of 486 days, an

average of 4.6 days; the schedule time was 35 hours.

From Louisiana to Kansas City territory, McGehee is the first terminal and Van Buren is the last, 256 miles, and the schedule time is 26 hours; 38 cars, 137 days, an average of 3.66 days.

From Texas points to Kansas City, an adjacent territory, moving via Texarkana, and Van Buren, a distance of 298 miles, schedule time is 28 hours; 84 cars consumed 313 days, an average of 3.7 days per car.

Southbound from St. Louis to Texas points, via Texarkana, the first terminal in Arkansas being Hoxie, distance 264 miles between those terminals, schedule time 24 hours. I found 391 cars consuming a total of 2170 days, or an average of $5\frac{1}{2}$ days a car; that is a little over four days above the schedule time.

Moving from Kansas City via the White River Division, Main Line and Memphis Division to Memphis and beyond—that is Kansas City and territory—it is not all from Kansas City—distance 240 miles, schedule time 24 hours. I find 376 cars consuming 1009 days, averaging 2.7 days per car.

Kansas City territory to Louisiana and Texas, via Van Buren and Texarkana—some Louisiana stuff went that way—298 miles, between Van Buren and Texarkana, schedule time 22 hours, 355 cars consumed 1566 days in transit average of 4.4 days per core

consumed 1566 days in transit, average of 4.4 days per car.

Kansas City territory to Louisiana points, via Van Buren and McGehee, 255 miles, schedule time 22 hours, 85 cars consumed 296 days, or an average of 3½ days per car. Total schedule time for movement of those 1560 cars, on an average, was a little over one day per car, the actual time consumed averages a small fraction over four days per car.

Q. They found the spring months almost as inviting as the fall?

A. We found about the same condition; the averages are a little longer in October than in March, but the delay was there in 3432 March; that covers a total of roughly speaking, 3,000 cars.

Q. Have you the detail of that, giving the waybill, car number and everything, to show the data upon which these tabulations were made?

A. It is in our possesion, the detail back of these recapitulations, Q. Have you that all ready so if these gentlemen want to investi-

gate it, it is ready for their investigation?

A. I think it is in shape so it can be easily handled, yes, sir.

Mr. Hill: I will state, Mr. Moore, if you want to go into it, we
will furnish you all the detail you may want to investigate it.

Q. There has been a good deal said in this record, about the division handling of cars; there seems to be quite a marked theoretical difference between the handling of trans-state, interstate and intrastate, have you investigated the question of handling of cars at terminals?

A. Yes, sir.

Q. Have you got any data worked out as against these theories, about the handling of them there?

A. We have made an investigation; I have the result of it here.

Q. State generally the methods that you have pursued, and what you have there, and then we will take it up somewhat in

detail.

A. I have a set of figures here, representing the condition of affairs that we found at all the through freight division terminals in Arkansas for five days in the month of October, 1907; the first five days—we stopped at the fifth day because it was an immense task; the cars were standing around the terminals so long it was a superhuman task to find some of them going out, and we didn't attempt to get more than the five days; I say all the terminals; I discovered this morning that the Little Rock figures had not been recapitulated although they had been compiled; that is being

done now, and I will have to omit that for the present, and I will get it for you a little later.

Q. What are the division terminals?

A. On the main line, Hoxie, Little Rock and Texarkana; speaking of the through freight divisions; there are locals mixed up between.

On the White River, Cotter and Newport; Newport is a junction of the Main Line and the White River; on the Helena Branch-that

is the line from Knobel to Helena, Paragould and Wynne.

On the Memphis Branch, Memphis, Tenn.

On what was known as the Little Rock & Ft. Smith line-Central

Division, Van Buren and Little Rock. South of Little Rock on the Arkansas and Valley Divisions, Mc-

Gehee. the Warren Branch, Warren, the terminus of the On

branch. Q. Did you mention Texarkana there?

3434 A. Yes, sir, Hoxie, Little Rock and Texarkana—the main line-that was where I started.

Q Give us the result of your investigation, take them up by di-

vision points?

A. We got at our figures in this way, taking Hoxie as an example: I can explain it by reference to a particular terminal better

than I can by an abstract example.

We took all the trains shown on the dispatchers' sheets, as through trains, moving into Hoxie from the North; we listed each train, showing all the car numbers, the hour and date of their arrival at Hoxie, and as a little further guide, what the conductor said was the final destination of the car, in some cases the contents; having listed all the train as it came into the terminal, by car number and initial, we proceeded to trace those cars leaving the terminal, our plan being to find them going out in another train; that information being derived from the wheel report of the train that took them out of that terminal, and of course, when the cars were not in the care of the train crew going into the terminal or going out of the yard, they were charged up as being in the yard.

Q. May be they were out on the main line if they were transstate; did you find whether passenger traffic had been interrupted

by storing them on the main line?

A. Of course, that wouldn't be good railroading to leave the main

line blocked.

Q. So you have assumed that they didn't leave that trans-3435 state freight on the main line?

A. No, sir, there is no question but what they were put away, stored somewhere.

Q. Then what did you do?

A. Deducting the hour and date of arrival in the terminal, from the hour and date of departure of the car, the lapse of time was the time the same was in the terminal, or the time in which the car remained in that terminal.

Q. From that dispatcher's sheet, you got the time it went into

the terminal and the time it went out?

A. From the dispatchers' sheets we located all the through trains that went into the terminals, and then we took the conductors' wheel reports of those trains and the car numbers, and the hour and date of arrival of the train, and the hour and date of departure in other trains.

Q. From what the dispatchers' sheets or what the wheel reports

showed?

A. From the wheel reports; we used the dispatchers' sheets as an index to what through trains came in that terminal, so we might know whether we got them all.

Q. Go ahead and explain what you have found?

A. Taking the Hoxie terminal—these figures cover all trains for the first five days of October, 1907, into Hoxie from the North, during that period, there were 23 through trains,

hauling a total of 842 cars, 830 loads and 12 empties; the caboose is excluded from all these figures; it is a service car and is

necessarily taken off at the division terminal.

Of those 842 cars, there remained in the Hoxie yard quite a long time—I will state the average first; I found that those 842 cars, the cars in that individual train went south from Hoxie in from two to seven other trains, and remained in the Hoxie yard from one hour and twenty minutes to two hundred and twenty-five hours and fifteen minutes.

Q. That is a nice place up there at Hoxie.
A. We found seven cars that stayed there 121 hours and 20 minutes; seven cars that stayed there 6 hours and 5 minutes; 2 cars, 52 hours; 2, 45 hours; four cars, 36 hours; 10, 34 hours; 35, 19 hours: 14, 22 hours.

Q. Was there any discrimination between the visitation at Hoxie,

of trans-state, interstate and intrastate cars?

A. The only information we have on that is what the conductor said vas the destination of the freight, and that is not very good. because we found they were not reliable on that; we didn't go to the waybills.

Q. You just took the wheel reports?

A. Yes, sir, he might have said it was going to Texarkana, and

it would stop at Little Rock.

Q. You used whatever might be indicated on the wheel 3437 reports for whatever probative force it was worth; is it indiscriminate between the classes of traffic?

A. In the case of these trains coming from Hoxie from the north, through Missouri Division trains running all the way from Piedmont most of them, as we understand, are through trains; they may make some pick-ups and set outs, but with the exception of that, all of it was interstate; I wouldn't say all of it was, but the major portion of it was.

Q. It would be necessarily all interstate except what might be

pickel up between the state line and Hoxie?

A. Yes, sir, some sixty miles of road.

Q. I believe you stated you haven't the Little Rock figures here?

A. Yes, sir.

That was stuff from the north into Hoxie which we traced out southbound; of the trains from the south into Hoxie, we found 13 trains, carrying 572 loads and 78 empties, total 650. Those cars went out in from three to seven other trains, remaining in the yard a period varying from 1 hour and 20 minutes to 103 hours and 40 minutes; we found 14 cars that stayed there 1 hour and 20 minutes, and 40 cars, 12 hours; 27 cars, 161/2 hours; 34, 11 hours, and there are some cars that stayed there but two hours,-19 of them.

Q. Did you get the averages of that?

A. They went out in from two to seven other trains; I 3438 have no average here in days; they can be figured from this data.

Q. Going out on the different trains was what I was asking you

about: it was from two to seven?

A. Yes, sir; that is, the-consist of any one train, went out in not less than two trains and some went out in seven trains; I mean the cars carried by the train.

Q. You mean that of the cars coming into Hoxie on those known trains, instead of going through on a bridge, they would go out on

from two to seven trains?

A. Yes, sir, one train going into the terminal, the cars in that train going out in perhaps two trains, perhaps seven, that is the widest range, none less than two and none more than seven.

Q. You didn't find the unbroken train there?

A. Not at that terminal.

Q. I believe you did find that onion train somewhere else? A. We found a train some place, I will get to it presently.

Q. Go ahead.

A. At Texarkana, we made no figures, because Texarkana is the end of the road; all trains are made up there or taken apart there. unless they should go over the T. & P. solid; I don't know as to those conditions; we had no means, without having access to the records at Texarkana, to check the deliveries from or to the T. & P .;

a great many trains are taken apart there and put together

there, that is the assumption.

Q. Proceed with the other divisions?

A. Beginning at the north end of the White River-Cotter terminal, trains coming from the north, we found 11 of them, bauling a total of 135 cars, 122 loads and 13 empties; one of those trains came through without a break, got through Cotter.

Q. Did it get through Newport without a break?

A. I can't say as to that; that was a train consisting of 9 carloads when it came into Cotter, stayed in Cotter yards from 9:40 P. M. until 8:35 P. M. the next day; that is the train, first 253 of October 4.

Q. How about the others in the Cotter yard?

A. I want to state that I got those figures backward; the cars remained in the yard there from 1:05 P. M. until 9:40 P. M. One train got through; the others went out of Cotter in from two to

sisted of 19 cars.

three trains, some in two, some in three trains; the time which the cars remained in Cotter yard varied from one hour and 35 minutes to 147 hours and 50 minutes; 23 cars got through in an hour and 35 minutes; 5 got through in 1 hour and 40 minutes; next, 15 in 3 hours and 40 minutes; 10, 28 hours; 11 in 42 hours; 2 cars in 53 hours—there are others in between.

Moving through the Cotter yard in the reverse direction, coming up from the south, coming from the direction of Newport, 3440 we found 7 trains, 87 loads and 18 empties, total 105 cars;

those went out to the north from Cotter in from three to six other trains, consuming in the Cotter yard time ranging from 1 hour and fifteen minutes to 181 hours and 50 minutes; six of them stayed there an hour and fifteen minutes; the next I find is 14 in 8 hours; 6 in ten hours; 16 in 18 hours; 12 in 21 hours; 9 cars in 58 hours and some few minutes.

Newport is a through freight terminal for the White River Division, although it is not a through freight terminal on the main line, as I understand it; coming down the White River Division from the north into Newport, during this period, I found six through trains, carrying 76 loads and an empty, 77 cars, which went out of Newport in from one to four other trains; here is a train that got through unbroken; it has twelve cars in it.

Q. It wasn't the same train you had up there at Cotter, because that had only 9 in it?

A. They may have added some up the line; they might have added some at Diaz or Batesville. The time consumed was from 3 hours and 20 minutes to 25 hours and 16 minutes; 13 cars, consumed the minimum time; 12 cars the maximum—in between, I find 3 in 12 hours, 20 in 17 hours; 15 in 3 hours and 40 minutes.

In the reverse direction, I find some trains that ran up the main line into Newport, set out their whole train there; they were esceptional, however, because Newport is not a through freight terminal of the main line, as I understand it.

3441 Those trains of which there were four, hauled a total of 66 loads and 20 empties, total of 86 cars; they went out in from one to eight other trains; here is one train consisting of 37 cars that was sent out in eight other trains; the train that came out solid, got through Newport, without being taken apart, con-

In that connection, I have here before me an abstract of the wheel report of train #254 into Newport, Oct. 3, 1907, ordinary freight, a train of 37 cars; it is my understanding, the conductor in listing his cars, puts it down in his train book and subsequently copies that and makes his wheel report; he will check his train beginning at either end of the train, at the engine or caboose, I don't remember which; when I used to come in contact with that, he used to begin at the head of the train, taking the numbers, and the yard clerk took the seals, and he came in and made up the wheel reports in that order and called for waybills; this copy of the report would indicate to me that this particular train was listed by the conductor

in that manner, or it had to be switched around a whole lot or virtually pulled to pieces.

Q. It was not governed by the "touch not, taste not, handle not,"

that some of them testified to?

A. I just mentioned that in passing; there were cases where two or three cars were switched together, but other cases where the individual cars were switched several times.

That disposes of the White River Division.

I have the stuff coming from the north into Van Buren, I found a total of 12 through trains, hauling 389 cars, 359 loads and 30 empties; they went forward in from two to nine other trains, and remained in the Van Buren yard from 2 hours and 35 minutes to 235 hours and 50 minutes.

Q. That is a nice country up there, I don't blame them for

staving. Give us some of the instances there.

A. 15 cars, stayed 66 hours, in round numbers; 17 stayed 67 hours; 4, 80 hours; 12, 82 hours; 4 cars 174 hours; they range in between; here are 16 that stayed 2 hours and 40 minutes; 20 that stayed 14 and a half hours; 12 cars that stayed 39 hours.

Q. That was all necessarily interstate traffic, coming into Van

Buren?

A. Yes, sir, I don't see how they could pick up any state business between the state line and Van Buren.

Q. There are no stops between Van Buren and the State line?

A. No, sir; that is between Van Buren and the state line, which came into Van Buren from the South.

Q. I thought you said from the north? A. If I did, I was mistaken about it.

Q. That which would stop there would probably all be state business, and that which went out was necessarily all interstate?

A. Yes, sir.

3443 Q. Have you anything showing how much of that stuff stopped at Van Buren?

A. Yes, sir, 19 cars.

Q. Out of how many?
A. I don't know whether they were loads or empties.

Q. How many did you have, including the empties? A. 389; 359 were loads.

Q. 19 of them were probably state business, if it didn't originate beyond the state coming into there, and the balance of them was necessarily interstate?

A. Yes, sir, if they left Van Buren, they were necessarily inter-

state.

In the other direction, coming into Van Buren from the north, I find 17 trains hauling a total of 372 cars, divided between loads and empties, 360 and 12 respectively. Those trains went out in from one to eight other trains; three trains got through unbroken.

The minimum time consumed in the Van Buren yard by those cars was 2 hours and 55 minutes, and the maximum 233 hours and

30 minutes.

Q. Those greased streaks of lightning took 2 hours

A. They stayed in the yard 2 hours and 55 minutes, practically three hours; in between, I find 4 cars, 106 hours; 4, 136 hours; 26 cars, 33 hours; on the other hand, I find 18 cars that took 2 hours and 55 minutes; 13, 3 hours and 25 minutes; 18, 12 hours and a

half; ten cars 22 hours, 12 cars 28, and so on.

South of Little Rock on the Valley Division, I have the 3444 McGehee terminal, going into McGehee from the north, I find nine through trains, hauling 240 cars; 198 loads and 42 empties; those cars went out in from two to nine other trains out of McGehee; they remained in the yard a minimum of 6 hours and 55 minutes; a maximum of 127 hours and 15 minutes. I find in between, 6 cars, 98 hours; 2 cars 118 hours; 21 cars 58 hours; on the other hand, 4 cars got out in 12 hours; 19 cars got out in the minimum time,-6 hours and 55 minutes, virtually 7 hours.

In the other direction, coming up from the south, into McGehee, I found seven trains, pulling a total of 224 cars, 219 loads and 5 empties, forwarded from McGehee in from two to eight other trains. The minimum time which any car on these trains remained in the yard was three hours and a half, and the maximum, 552 hours and 20 minutes; that was only one car. We find 8 cars that remained 173 hours and 25 minutes; 51 cars, 22 hours; 23 cars, 28 hours; 19 cars, 42 hours; 4 cars, 114 hours.

Paragould on the Helena Branch, is a through freight terminal for trains coming down over the leased track of the Cotton Belt, the Illinois Division trains.

Q. They are all interstate going south and going north too? A. Yes, sir, I understand the track being leased, I under-

stand the Iron Mountain would not have the right to do local business on that track, and all of it is leased between the State line and Paragould,

Q. Necessarily all those figures are interstate?

A. Yes, sir. I found 7 trains-I would like to qualify that in this respect; in case some stuff came from the south in a through train, it might have been that the stuff was going on north of Paragould on the Helena Branch, to Knobel or Corning, which might have been State business, but so far as stuff coming from the north into Paragould is concerned, your assumption that it is all interstate, is correct.

Q. Something originating in south Arkansas, coming up there. might be diverted over to the Main line or Branch line west of Para-

gould?

A. Suppose we had a car at Wynne, destined to Knobel, a state shipment, and a train for Paragould made up largely of Illinois Division freight, perhaps the engine was short of her rating, the tonnage was light, they might very properly put the Knobel or Corning car on that train, take it off at Paragould and put it on the local, and that would be state freight, but the reverse movement coming from Missouri into Paragould terminal, must necessarily be all interstate.

Q. Do you know whether that movement that would be diverted

there could be of any considerable extent?

A. There is not a great deal of track left to serve between Paragould and the Missouri-Arkansas State line, via Knobel, and I should not imagine there could be a great deal of it.

Q. About how much track is there of that?

A. About 81 miles.

Q. Necessarily all which is northbound freight would be interstate, except that possibly there might be some cars serving that territory of 81 miles?

Mr. Mogre: I object to that, that is a very unfair assumption, to my mind—necessarily all of it going north would be interstate freight.

Mr. HILL: I say except that which might be diverted on this 81

miles of track?

WITNESS: Perhaps, I did not make that clear, Judge; I will: what I meant to say was this, that a train going into Paragould from the south, moving up the Hetena Division, unless the freight was destined to Paragould proper, or to some other station on the 81 miles of track between Paragould and the Missouri-Arkansas State line, it would necessarily be interstate freight; for this reason, it would only be hauled to Paragould for delivery there to the Illinois Division or for delivery to some station on this 81 miles of track in Arkansas, or for

delivery to the Illinois Division, which operates north out of Paragould and over the leased track, and as on that leased track, the Iron Mountain has no right to do local business, and it has none, it would have to haul trains across the Missouri-Arkansas

State line intact,—

Mr. MOORE:

Q. How many stations are there north of Paragould on that branch?

A. I said that also included the main line between Knobel and the State Line; I am assuming also that they would not haul any stuff up to Knobel and backhaul it; there might be a little of that.

I find between Paragould and Knobel, two stations at which agents are maintained, and 4 stations at which no agents are maintained.

Mr. MOORE:

Q. Isn't Jonesboro one of those stations?

A. It is not on the Iron Mountain; it is on the Frisco and Cotton Belt.

Q. Isn't that right off the Iron Mountain's line?

A. It is south of Paragould on the Cotton Belt; I meant to cover all that by saying the car destined to Paragould,—as far as the Iron Mountain is concerned, a car destined to Jonesboro would be taken to Paragould, and there delivered to the Cotton Belt.

Q. If there was a shipment on the Iron Mountain to Hoxie,

3448 it might be delivered there.

A. That is back haul stuff, I should say, down to such a point as the mileage would equalize the distance by Bald Knob and Wynne.

Q. Those are important stations—

A. Yes, sir, but there are no important stations on that line between Wynne and Paragould to ship anything from.

Mr. HILL:

Q. If it originated in Memphis, where most of that stuff originates,

how would it go?

A. It ought to go to Bald Knob and up the main line, because they would have to back haul it the other way, if they did not send it that way.

Mr. MOORE:

Q. What stations are north of Knobel in Arkansas?

A. I haven't included Knobel, it was the junction; I will take that in now as a main line station; do you want them by name?

Q. It is immaterial.

A. The only station of any size is Corning, then Moark; those are the stations at which agents were maintained.

Q. Is Moark in Arkansas or Missouri?

A. It is a mile and a half south of the line; including Knobel, there are three stations shown with station agents, and seven stations without agents.

Mr. HILL:

Q. A through train is not supposed to stop where there is 3449 not an agent?

A. I don't know, sir. Those trains into Paragould would

carry cars going to those stations at times.

Referring to Mr. Moore's question, whether there might be some stuff originating south of Paragould, and destined to Knobel, that would have to be back-hauled, I should say it would be a very rare occasion where that stuff would be hauled in through trains, and it is through trains I am discussing; it would be locals that would pick up that stuff, in the orderly conduct of the road's business.

Any business from north of Wynne and south of Paragould, which it would be expedient to haul around by Knobel and down the main line south, would be in a local and not a through train, and if it moved from Wynne, the sensible route and usual route would be over to Bald Knob and by the main line; we are only considering through stuff, and if it was destined south of Knobel on the main line, it would not originate on a through train north of Wynne; the local would pick it up and carry it on to Knobel.

Q. I believe you have demonstrated that there was a possibility of some of these negligible quantities being shipped that way?

A. The backhaul stuff if it originated south of Paragould, would not go in a through train; it ought to go in a local, and a local sets out all its cars at Paragould.

From the north into Paragould, that is the other side of the 3450 proposition, coming over the leased track where we have said the business would necessarily be all interstate, I find five trains, 112 loads and 24 empties, total 136 cars, which went out in

from one to seven other trains. Two trains came through unbroken; the minimum time consumed in the Paragould yard was 1 hour and 49 minutes; the maximum, 250 hours and 25 minutes.

Mr. MOORE:

Q. Can you distinguish between loads and empties as to which ones went out?

A. Yes, sir; -that is the detail will give that; I haven't tabulated that; I have just considered a car as a car, whether loaded or empty.

Mr. HILL:

Q. Have you that so you can state that in that connection?

A. No, sir, I would have to make the figures, it can be done if

you desire it.

In between those two extremes, I find 22 cars remaining in the yard 12 hours; eight cars, 13 hours; 3 cars, 31 hours; however, there were 21 cars that remained but two hours and a half.

From the south into Paragould, I find seven through trains, hauling 93 cars, 81 loads and 12 empties, which went forward in from two to five other trains. The minimum time which any of these cars remained in the Paragould yard was 8 hours, eight cars staying there that length of time. The maximum is 481 hours;

that was apparently a bad order car, or was held for some extraordinary reason. I find two cars, 59 hours; 21, 26 hours; 12 cars, 27 hours; others in between, ranging from 10 hours

to 25 hours.

Mr. MOORE:

Q. Did you say 7 trains with 93 cars?

A. Yes, sir. Q. Isn't that a little unusual?

A. Yes, sir, they were light, but I have the car numbers and in-

itials; that is all we found.

The Wynne proposition is rather negligible; I have some figures here; most of that stuff runs through Wynne, although I found two through trains, 41 cars, all loads, minimum one hour, maximum 104 hours and 50 minutes; one went out in two other trains and the other went out in four trains.

Q. That is practically all interstate?

A. It might be anything at Wynne, it might be state or interstate, or anything else; that was moving from the north into

Wynne.

On the Helena Branch points from the south into Wynne, I found three trains, 54 cars, all loads, minimum time, 1 hour and 20 minutes, maximum 66 hours and 15 minutes. In between, I found cars ranging from nine to 34 hours up to 66; those trains, of which there were three, one went out in four trains; another in three trains, and another in four trains. That cleans up that

proposition, with the exception of the Little Rock figures, and as I recall, we didn't find any trains that came through Little Rock without stopping; that will be ready after lunch, if you want it.

Q. That finishes all of those?

A. Yes, sir.

Q. While we are on this trans-state proposition, there is some talk about the various facilities that were used for trans-state business it was said that the trans-state freight did not use the facilities, and there was some testimony that the cattle traffic is practically all interstate? Have you any data there showing what facilities there are for the cattle traffic, interstate traffic, whatever it may be?

A. I think I have, yes, sir. The Company's official list of station and agents—I had the list of the Company effective in 1907 when I made these figures; I haven't it here now, shows the stationary live stock facilities in the state, shows where they are located. the number of pens, and their capacity in cars, and details, as to whether the water is accessible. Do you want the details?

Q. No.

A. I found that stock pens are located at 65 stations, and equipped with stock handling facilities; that 187 pens, having a total capacity of 504 cars are maintained, as stated in the Company's official list.

Q. The cotton platforms, I believe that is already in evidence,

that all stations are equipped with them? 3453

A. I don't know as to that.

Q. Have you in your possession, the data from which you have deduced these figures you have read into the record, the car numbers and details of it?

A. Yes, sir, it is one step from our sheets which I have here to

the Company's wheel reports.

Q. You have those ready for inspection of these gentlemen, if they want to inspect them?

A. Yes, sir, with the exception of Little Rock. Q. We will take that up after lunch.

Mr. McPherson said that strictly speaking, no part of the yard organization cost, nor of the switching service, is chargeable to transstate traffic.

Mr. MOORE:

Q. What page is that?

Mr. HILL:

Page 343 of Volume 1 of the printed record.

Q. "Strictly speaking, no part of the yard organization cost, nor of the cost of switching service is chargeable to trans-state traffic." Do you know from your experience in terminal work, where these trains would be and what service would be performed to these trains that you have shown laying in yards for days?

A. I have no first hand knowledge of conditions in Arkansas, and was never employed around an Arkansas terminal, but from my experience in other terminals, I should say that they were moved around a good deal, kicked around a good deal, as 3454 the switchman call it; a car staying in the yard 50 or 60 hours would undoubtedly get moved around a good deal.

I base that on this, it was at one time, at intervals, a part of my duty, to take a check of the yard when I was employed by the L. & N. in East St. Louis; we used to go out and take a check of the yard over the Yardmasters' head, every once in awhile, and I have done that sometimes on four or five successive days; I acted in that capacity when the work was light on the bill desk, helping the chief clerk; I used to have it very forceably impressed on me, that I never found the same cars on the same track, indicating that the cars were moved around a good deal; I don't know whether the local conditions in Arkansas are the same; I do know that cars left in the terminals will get shifted a good deal.

3455 Q. Have you now before you the results of the investi-

gation of the Little Rock terminals?

A. Yes, sir, that is, of the handling of through trains in those terminals.

C. I wish you would give them in the same way you did the other terminals.

A. This is for the vard at Argenta, Arkansas-

The MASTER:

Q. Trans-state?

A. No. sir: through trains.

It covers the first five days in October, 1907, the same that was

covered by the data given for the other terminals.

I find 18 trains running into Argenta from the north, hauling 822 cars, 797 of which were loads and 25 were empty. These cars went out of the Argenta yard in various directions in from three to eleven other trains and none of them got through unbroken.

I find that the time spent in the yard varied from 3 hours and 40

minutes to 189 hours even.

I find at the minimum figure, 42 cars.

I find 26 cars remained 7 hours and 40 minutes.

40 cars remained 11 hours and ten minutes.

3 cars remained 16 hours.

3456

17 cars remained 19 hours. 18 cars remained 29 hours. 17 cars remained 42 hours.

Ten cars remained 60 hours.

That is along the lines of the information given as to the other terminals—that is, from the north.

Now, from the south into Argenta:

I find in the same period 15 trains hauling a total of 444 cars, of which 367 were loads and 77 were empties.

Those cars were forwarded out of Argenta yard in their various directions in from two to seven other trains,—

Mr. HILL:

Q. You did not find the onion train?

A. It did not show up in those five days-

The time consumed in the Argenta yard varied from 2 hours and 30 minutes to 104 hours 55 minutes. Only one car consumed

the minimum time.

I find 25 cars stayed in the yard 10 hours; 20 cars stayed 11 hours. 16 cars stayed 15 hours; 25 cars stayed 50 hours; and so on up. Some few cars stayed a shorter time; for instance, two cars four hours; three cars stayed five hours and one car stayed six hours.

The bulk of the cars were in the yard 15 hours and over, some of

them as long as 104 hours.

3457 Q. I want to call your attention to the testimony of Mr.
Frank May, on page- 332-3, volume 2 of the printed record:

"Necessarily the revenue basis is dependent upon how nearly the rate is based upon the cost of service, isn't it?

"A. Yes, sir.

"Q. If the rate does not reflect the cost of service, then this, as a basis for ascertaining the respective expenses intrastate and interstate, would not be of value?

"A. If that was true, if the rate did not reflect at all the cost of

service, of course it would be of no value.

"Q. Its value is entirely dependent upon how nearly the rate reflects the cost of service?

"A. Yes, sir."

Now, have you made an investigation of the rates prevailing in Arkansas upon the leading commodities, to ascertain how nearly

that rate reflects the cost of service?

A. Yes, sir, we have made an investigation of actual movements under the rates prevailing in Arkansas, during the period which is the subject of our inquiry here, but we have arrived at our conclusions as to their relation to the cost of service, rather on a comparative basis, than by any attempt to segregate the rate into cost and profit.

Q. Let's take up in detail the result of your investigation;

3458 what is the first one we have?

A. I see here on the top of my pile, Exhibit #40, which was the rate map prepared by us and approved by Mr. Perkins, and filed by him, showing the zone rates on pine and cypress lumber, and articles taking the same rates from certain producing territory in Arkansas and Louisiana to St. Louis, Cario and Thebes.

Q. Take that lumber map and explain it and the practical opera-

tion of the same?

A. The map was intended to show the size of the zone from which rates apply on a flat or blanket basis, and we undertook to ascertain what the actual movement was from the various points in that zone to the receiving territory at St. Louis and Cairo, indicated on the map.

Just a word of explanation before we go into the results of our ex-

amination.

To explain the map a little further, the producing zone shown on the map, circled by a heavy black line, marked "A" includes stations shown in the St. Louis, Iron Mountain & Southern Tariff #4903-A, Inter State Commerce #5057, from which a blanket rate of 18 cents applies on pine and cypress lumber, carloads, to St. Louis, and the blanket rate of 16 cents to Cairo and Thebes is applied.

Q. Just a word of explanation of the blanket rate; you mean by that a rate which is simply a flat price from that zone to the point of

destination?

3459 A. Yes, sir, I will say that this 18 cent rate to St. Louis applies from each of the 584 stations in that zone, some in Arkansas and some in Louisiana.

Q. Some in Texas too, aren't there?

A. Not shown on this map, no, sir. That is another tariff, and the map confines itself to one tariff, and the similar rate from the same stations, 584 in number, but 2 cents per one hundred pounds lower, applies to Cairo and Thebes.

The most northerly point in the zone that is nearest to Cairo and St. Louis is Little Rock; the southern extreme of the zone is at Lake

Charles, Louisiana.

Q. How far apart are those?

A. The business would not be moved from Lake Charles through Little Rock, and the comparison would fall to the ground there, it would follow the route through McGehee, Wynne and Knobel.

Little Rock is 345 miles from St. Louis. Alexandria, the junction of the line which takes freight from Lake Charles to the Iron Mountain rails, is 599 miles to St. Louis, short line mileage.

That explains in a general way what the map is for, and explaining further the blanket rate feature, I would say that of the 584 stations I have described as being in this zone, and from which that rate applies to St. Louis, 319 are located on 36 other lines, which connect with the Iron Mountain, and which necessarily would re-

ceive for their haul, a varying proportion of the blanket rate, 3460 shrinking the Iron Mountain earnings by the amount of the

allowance for their baul.

As an illustration, the rate from Lake Charles to St. Louis is 18 cents, according to the tariff, and so shown on the map; out of that, the divisions of the rate current during the period of our inquiry, would allow the St. Louis, Watkins & Gulf Road, for its haul from Lake Charles to Alexandria, six cents, leaving for the Iron Mountain haul from Alexandria to St. Louis 12 cents. If a car of lumber originated locally at Alexandria, even though it were hauled in the same train as the car from Lake Charles, it would earn for the Iron Mountain 18 cents per hundred pounds for exactly the same haul. In other words, the Iron Mountain will get just two-thirds of the earnings on a car of similar weight originating at Lake Charles, that it will on one originating at Alexandria.

Q. The cost of service is less when they received it from another

line than when they haul it on their own line?

A. Yes, sir. There seems to be a question as to whether a car originating at Alexandria would not entail a heavy terminal ex-

pense, on account of the car being placed on some industry track or placed for loading, and taken away when loaded; that is the most unfavorable condition that could prevail, the most expensive condition that could exist, first the placing of the empty, then the re-

moval of the loaded car, and hauling to the train track after 3461 it was loaded; it has been assumed,—I think Mr. Perkins made the statement, that there would be a greater terminal expense in connection with the last car than the one coming from

the connecting line, the Watkins and Gulf, for instance.

Without questioning the accuracy of that statement, I would like to call attention to the fact, that moving out of Alexandria in the month of October, 1907-and our investigation covers the period ranging from the 1st to the 15th of the month-we took half the month just to get a line on it. moving out of Alexandria during that period, I found 22 cars going from the Louisiana Railway & Navigation Co. to the Iron Mountain, the Iron Mountain's proportion of the rate being 12 cents a hundred. I found 22 cars coming from the Louisiana Rv. & Navigation Co., of which the Iron Mountain got 13 cents I should have said, and 16 cars coming from the Watkins & Gulf at Alexandria, on which they got 12 cents, both connecting lines at least; it appears to me on the fact of it, that a similar service would be rendered for 22 cars on which they got 13 cents, and for the 16 cars on which they got 12 cents, but there is one cent a hundred pounds difference in the cost; one of those rates is not based on the cost of service.

Alongside of that movement. I have 18 cents flat, nine cars, showing that the assumption I started my statement with, is borne out

by actual movement.

Just along that line, I have the whole movement that we 3462 found under this tariff for the 15 days I spoke of. this business is handled to St. Louis. We start at Little Rock, the most northerly point in the zone, and I find 11 cars on which the Iron Mountain got 18 cents, a hundred, a haul of 345 miles; down the Main Line of the Iron Mountain 24 miles at Benton, we find a movement of 18 cars, on which they got but 14 cents, although the Iron Mountain's haul on its Main Line over the same track, the Benton cars passing directly through Little Rock on their way to St. Louis, was 24 miles further in the case of the Benton shipment, and the rates 4 cents less for the shipment. If the Little Rock rate is an index to the cost of service, the Benton rate is not, and vice The reason the Iron Mountain got but 14 cents was that it allowed the Little Rock & Hot Springs Western Railroad four cents per hundred pounds for its haul, for freight originating on its line.

I find 14 cent rates, comparing them with that Benton rate, applying from Pine Bluff, 36 cars moving 387 miles to St. Louis, and necessarily moving through Little Rock on their way to St. Louis. The other four cents of the blanket rate, in that case, went to the

Pine Bluff & Western.

I find again 4 cars moving from Malvern, originating there at flat 18 cents, 389 mile haul to St. Louis: I find cars originating on the Iron Mountain rails at Saginaw, below Malvern seven miles, moving at 14 cents; the other four cents went to the Saginaw, & Ouachita Valley Railroad.

I find a movement of three cars from Donaldson, still on the main line 400 miles from St. Louis, at 18 cents, originating locally at Donaldson, and the Iron Mountain getting all the rate; ten miles below, I find a movement from Daleville, coming from the U. T. A. & M. Rv. for which the Iron Mountain accepted 12 cents.

As a parallel for the illustration I gave at Alexandria, I find movements from Montrose, on the Valley Division of the Iron Mountain, business coming from the Crossett Railway, five cars,

14 cents, eight cars from Montrose proper, at 18 cents.

7 cars coming from the Mississippi, Hamburg & Western at 14 Wherever the rate I am quoting is less than 18 cents, the difference between the rate quoted and the 18 cents, went to the connecting line originating the business, or at least delivering it to the Iron Mountain.

Q. Whether it was a railroad or tap line?
A. They are all connecting lines to me; I don't know whether they are common carriers or not, but they are getting divisions of the rates.

At Prescott on the Main Line, 442 miles from St. Louis, I find 9 cars coming from Prescott & Northwestern, of which 3464

the Iron Mountain got 13 cents, having allowed 5 cents to the connecting line; there is a movement 97 miles further than Little Rock, directly through Little Rock, at 5 cents less rate than a car can be shipped from Little Rock; if the 13 cent rate indicates the cost of service from Prescott, surely the 18 cent rate cannot in-

dicate it from Little Rock 97 miles closer to St. Louis.

I find at Warren, Arkansas, the end of the Warren Branch of the Iron Mountain, the haul to St. Louis from Warren being 455 miles, two ears originating locally, on which the Iron Mountain got 18 cents a hundred; 41 cars coming from the Warren & Ouachita Valley Railroad, on which it got 15 cents, there being an exactly similar haul for the Iron Mountain after it got the cars; and one car from the Wilmar, Johnson & Saline Railway, via same junction. same haul, on which they accepted 13 cents. There are three rates covering a total of 43 ears, two of which moved at 18 cents, 41 at 15, and one at 13. Some two of those rates are not based on the cost of service; one may be.

Q. The cost of service seems to have been a little mixed up when

it got to Warren?

A. Yes, sir; the strongest contrast there is between the two rates applying on cars coming from two connecting lines, where the service would be similar; there might be that difference in service on stuff originating locally that I spoke of in the first in-

3465

Q. Have you ascertained the different divisions that the Iron Mountain makes with its connecting lines, or tap lines, as the case may be?

A. Yes, sir, the difference is between the 18c rate and the rates

I have been quoting.

Q. Have you a separate tabulation of the division sheets?

A. Yes, sir, I have a memorandum that will afford that infor-

mation. I don't know that it covers the division sheets, because we simply got enough information to cover the cars we had on our sheets.

To draw a comparison between the extremes on this statement, I find that 18 cent rate applying from Little Rock 345 miles from St. Louis, and 12 cents from Alexandria, 599 miles: Those two movements would be over different portions of the Iron Mountain road; that is, the Alexandria shipment need not come through Little Rock, very probably wouldn't, but comparing the extremes on one line of road, I find 18 cents from Little Rock and 11 cents from Hope, which is 458 miles from St. Louis.

Q. Passing over the same tracks?

A. Yes, sir, necessarily passing through Little Rock on its way to St. Louis.

Again on this division, I haven't the division sheets here, they are not open to public inspection, we were given the information I desired.

Q. You made a memorandum from these?

3466 A. Yes, sir; speaking now of St. Louis business under the 18 cent blanket rate, the Little Rock & Hot Springs Western got 4 cents.

Q. That is four cents of that 18 cents?

A. Yes, sir, that is the proportion they got for their haul up to the Iron Mountain rails?

The Gifford & Southeastern, 3 cents,

Pine Bluff & Western, 4 cents.

Perla & Northern, 3 cents. Malvern & Freco Valley, 3 cents.

Saginaw & Ouachita River Railway, 4 cents.

Elmore & Southwestern, 2 cents.

U. T. A. & M., 6 cents.

Arkansas Southwestern 6 cents.

Clark & Pike County 3.

Q. How much of a railroad is that Clarke & Pike County?

A. I made some inquiry, and my information is that during the latter half of 1907, it was something less than half a mile in length; previous to that time, the Interstate Commerce Commis-sion report shows it to be 12 miles, but the steel had been torn up. Three cents for a one mile haul would be 60 cents a ton a mile.

Q. How much would it be a ton a mile if they still had twelve

miles of rail?

A. It would be 1/12, 5 cents.

Q. That is a pretty juicy division sheet itself.

A. I don't know the conditions which dictated the di-3467 vision.

Crossett Railway got 4 cents.

Miss. Riv., Hamburg & Western, 4. Prescott & N. W. 5.

Q. How long a road is that?

A. In the year ending June 30, 1907, which is the last issue of

the Interstate Commerce Commission report that has been gotten out, the Prescott & Northwestern Railroad was 41 miles long.

Q. What was its division?

A. On St. Louis business, they got 5 cents.

Q. How much did that Clark & Pike County get?

A. 3 cents; of course that 5 cent division allowed the Prescott & Northwestern applied from all stations on its line.

Q. Whether they picked it up a mile out of Prescott, or whether

they went 41 miles?

A. Yes, sir, to the terminus of the road.

Q. Go ahead:

Lester & Ouachita Valley allowed 4 cents.

Arkansas & Gulf. 3 cents.

Warren, & Ouachita Valley, 3 cents. Wilmar, Johnson & Saline, 5 cents.

Arkansas & Louisiana, 31/2.

Q. How long a road is that?
A. It runs from Hope to Nashville, in that direction, I cannot find that in this report.

Louisiana & Arkansas, 6 cents, which connects at the same junc-

tion as the Arkansas & Louisiana road.

Q. Is that the one that runs way down to Minturn, La.? 3468 A. Yes, sir.

Dorcheat Valley Railroad Co., got 6 cents.

Louisiana Ry. & N. Co., connecting with the Iron Mountain at Selma, La., got 3 cents.

Boston & Little River Ry. Co., connecting with the Iron Mountain

at the same junction, got two cents.

Schwartz & Ouachita City, got 4 cents. Monroe & Southeastern Ry. Co. got 4.

Louisiana & Pine Bluff 5.

Ouachita got four.

Natchez, Urania & Ruston got 3 cents. Texas & Gulf via Rochelle, two cents.

Enterprise Ry., a Louisiana Railroad, 4 cents. Natchez, Ball & Shreveport, got four cents.

Louisiana Railway & Navigation Co. got 5 cents, and the

St. Louis, Watkins & Gulf, 6.

Those cover the divisions allowed these roads, whose billing we found moving during that period; we found movement covering all

those, aggregating 566 cars.

The divisions which we have used here were furnished us by the Assistant Auditor of Freight Receipts of the Missouri-Pacific, whose duty it is to make a settlement with their connecting lines on this through business. They were given us, taken from the division sheets in our presence, as being the divisions current at the time these shipments moved.

Q. Summing that up, it runs from one cent up to seven?
A. Yes, sir. 3469

Q. You have some other lumber maps there?

A. Yes, sir.

On the Cairo movement, also shown on this map, we find practically a similar condition, the divisions being the same, and the length of the haul varying relatively, not in the same figures, because Cairo is further south from St. Louis; we find a movement of 215 cars from the same territory, ranging from the 16 cent rate from Little Rock to 11 cents from Alexandria, Little Rock being 254 miles from Cairo and Alexandria 507.

Q. It seems to me the cost of service out of Little Rock is pretty

heavy on lumber?

A. I am just stating the fact; I find a nine cent rate to Cairo from Hope 296 miles from Cairo.

Q. Who is it that got the nine cents?

A. The Iron Mountain, and the Dorcheat Valley got seven.

Q. They have the same division to Cairo that they have to St. Louis?

A. Yes, sir, the division sheets give the same division to these two points.

That takes up the map known as Exhibit 40, filed by Mr. Per-

kins.

Q. There is another lumber map there, isn't there?

A. Yes, sir.

The other map is Exhibit 39; it is gotten up along the same lines as Exhibit 40, tending to show in more or less graphic form, during the time the exhibits cover the rate ap-

plied from and to certain places.

There are three receiving or consuming zones shown on this map, one of which extends to Coffeyville. Kansas on the south, to and including Omaha, Neb., on the north; it extends as far east on the main line of the Missouri Pacific as Etlah, Mo., about 80 miles west of St. Louis, taking in Kansas City, Atchison and St. Joe and stations between those points and Omaha, and between those points and Coffeyville.

The rate to that zone from the producing zone, marked "B" is

23 cents, from all points in the zone to all points in the other.

The other zone marked "C", embraces some territory in middle Kansas, the rate being 281/2 cents to all stations in that zone, from

all stations in zone "B".

The third zone, marked "D" begins just west of Hoisington, Kansas, on the Missouri Pacific line, crosses Kansas and Colorado and extends to the western terminus of that line at Pueblo, and takes in the Denver & Rio Grande from Denver to the south end of the road below Trinidad, in Colorado. The rate to Zone "D" from all stations in Zone "B" is 34 cents.

These rates were taken from Missouri-Pacific, Iron Mountain joint freight tariff 5116, Interstate Commerce No. 6228, effective during

the last six months of 1907.

3471 Q. Explain the practical operation of that?

A. Zone B, the producing territory, covers 236 stations on the St. Louis, Iron Mountain Southern, and 300 stations on other connecting lines, just as we have been discussing in the case of the St. Louis rates. Zone A the consuming territory, includes 390 stations on the Missouri-Pacific Railway in Missouri, Kansas and Nebraska, to which the 23 cent rate applies, from the 536 stations in Zone B.

Zone C, the consuming territory, covers 42 stations on the Missouri Pacific Ry, in Kansas, to each of which a 28½ cent rate ap-

plies from each of the 536 stations in Zone B.

Zone D, consuming territory, covers 52 Missouri-Pacific Stations in Kansas and Colorado, and 80 Denver & Rio Grande Railroad stations in Colorado, and to each of these 132 stations in Kansas and Colorado, a 34 cent rate applies from each of the 536 stations in Zone B, in Louisana and Arkansas.

We found some movement under those rates; I haven't the waybill numbers here; this is a summary we have; the numbers of the waybills, the dates, the stations making the waybills, and the car

number for each of these movements.

Q. What is the extent of that movement?

A. From producing territory Zone B, to Zone A, we found a movement in the first fifteen days of October, 1907, under the rates shown in Exhibit, of 426 cars.

3472 The movement from Zone B to Zone C was 57 cars, and to Zone D, 61 cars.

Q. It was not a paper tariff?

A. No, sir, and the divisions of those rates vary with the allowance made the originating lines in Arkansas and Louisiana, as they did in the case of the lumber zone.

Q. What division is also made with the Denver & Rio Grande at

the other end of the line?

A. There is a division made, but that information is not available at this time; I didn't attempt to show the Missouri-Pacific figures, except what was allowed the originating line, and treated the Missouri-Pacific and D. & R. G. as one proposition; we made some other figures in that connection, showing the allowance at both ends.

Q. The cost of service seems to be very nicely reflected there-

we will go on to the next item you have.

A. Where the hauls are similar, and the rate differs, one rate does not reflect the cost of service; of course, which one, I am not prepared to say.

We have a map, exhibit #42, which covers Texas common points, approximately 2600 stations in Texas, to which a blanket rate applies

from large territorial zones.

The map does not show all the zones in what are known as defined territories, because it would have been so confusing you 3473 could not have told where one zone began and one left off;

we elected to show the Pittsburg territory, Chicago-Cincinnati territory, and St. Louis territory, and those are shown on the map respectively as Zones A., B., and C. The receiving territory is shown as Zone D, which includes the common points in Texas.

Q. That is all movement towards Texas?A. Yes, sir, this is southbound movement.

The St. Louis rate territory extends from Southern Mississippi and a portion of Southwestern Alabama to Central Illinois, extending west almost to the Missouri-Kansas line, taking in the major portion of Missouri, and some sections of northern Arkansas; the result being that the same rate applies from St. Louis to any of the 2600 common points in Texas, as from Newport, Arkansas, for example, or the same rate applies from Jefferson City as from Whitehall. Illinois. In the case of the Jefferson City shipment, the shipment is Missouri-Pacific, that company performing the haul to St. Louis, and in the case of the Illinois shipment, the division would have to be allowed the connecting line east of the Mississippi River, and some provision has to be made for the absorption of the bridge transfer at St. Louis either by the Missouri-Pacific or the connecting line; that would probably be taken care of, in arriving at the eastern line's division.

Zone B, Chicago and Cincinnati territory, takes in Frank-3474 fort, Kentucky on the southeast, and extends out to Omaha: its connects with the St. Louis Zone near St. Louis, the boundaries of the two zones being the same line, but the rates from Zone B territory are made by adding a fixed differential on each class, to rates from St. Louis, and those rates do not, as Mr. Watson has testified, divide as they are made; in other words, business from Chicago, where a certain differential is added to make the through rate, added to the St. Louis rate to make the through rate to Texassay the Chicago and Alton Road bills a shipment from Chicago to St. Louis or East St. Louis, for delivery to the Iron Mountain the C. & A. would give a fixed part of the rate, more than was added to the St. Louis rate to make the Chicago rate, resulting in a shrinkage of the Iron Mountain earnings south of St. Louis on a shipment for Texas, as compared with the rate which they would get from St. Louis on an exactly similar shipment from St. Louis, and where they would do the same service from St. Louis to Texas, on each of the two shipments.

In my particular case, my experience with the terminals at St. Louis and East St. Louis, and from my practical experience in handling business through these terminals, would lead me to say that the terminal expense on shipments crossing the river, say one

originating in Chicago, would be greater than on the one originating locally, and for this reason, if the western line ab-3475 sorbed the transfer charge, while that would not be charged to operating expenses but deducted from its freight earnings, in fact, it is done automatically in making the waybil!, nevertheless, it would be the cost of getting the goods to its railroad in St. Louis or to its warehouse, in the case of L. C. L. freight; a shipment originating locally in St. Louis would be dumped at the warehouse door very close to the car in which it was to be loaded, if the freight house was properly operated.

There would be less revenue to the Iron Mountain, and they would have to divide the through rate. If one rate reflects the cost of service from St. Louis to Texas common points, the other would not; that is, assuming they were both going to the same point in Texas

and not considering the blanket rate feature down there.

The same is true of rates from Pittsburg territory, only the dif-

ferential is higher.

Q. Take the illustration of the shipment from Chicago, on the Chicago & Alton, and supposing that shipment would go to the farthest point in Texas in the common point group, and the shipment originating in St. Louis would go to the nearest point within the Texas group, what would be the difference in the haul down there?

A. As far as the lines south of St. Louis are concerned, 3476 and that is where the Iron Mountain's interest in the shipment begins, there is a possible variation in the haul of 400 miles, between the nearest and most distant Texas common points; that is in round figures.

Q. How is that division made in the exhibits in this case, of that revenue that has been received on these shipments passing through

the state to Texas common points?

A. You mean the division as to the earnings on the Iron Mountain Railroad, on a track mile basis?

Q. Yes, sir, explain what effect that would have?

A. To allot to every mile of the Iron Mountain, the same revenue

on that shipment, the same proportion of that rate.

There is another feature in connection with the blanket end of the rate in Texas, and that is the Texas lines get varying divisions, which naturally vary with the length of the haul, so while the Iron Mountain would be performing the same service from St. Louis to Texarkana, its revenue would diminish as the divisions allowed the Texas lines increased.

For instance, I don't know the exact figures, I haven't the T. & P. divisions here, but this seems quite a possible case to me, that a carload of merchandise was loaded at St. Louis for distribution on the Texas & Pacific, that could go through unbroken, assuming such a car moved, and it undoubtedly would get the same service, -each

piece of freight in that car would get the same service on the Iron Mountain rails, but the Iron Mountain revenue on each piece of freight would be determined by the divisions allowed the Texas lines, owing to the length of the haul in Texas.

Q. And beginning at the first instance, with the division allowed before they get into St. Louis if the shipment originated beyond-A. That is a variation at the other end; this illustration is for

shipments in the St. Louis car.

Q. I believe these gentlemen have testified something about the ton mile reducing every thing to a common level; there seems to be some common level reduction in the other basis that could reduce the revenue from all these shipments originating east of St. Louis and going to varying points in Texas, where exactly the same service is performed from St. Louis to Texarkana, to a common level, when they go to take the revenue to put it into these exhibits, as indicating the interstate revenue?

Mr. Moore: I want to object to that on the ground that it is a matter of inference, does not involve the facts, and is argumentative,

A. Without having any actual data as to the movement, and we did not consider it necessary because I think it would be admitted

by anybody who knows the Iron Mountain road, that it has 3478 a large volume of Texas business, without having any figures; as a matter of common logic, I should say that the service was reduced to a common level, but the operating expenses charged against it on the revenue basis of division, fluctuate as these divis-

ions of rate fluctuate.

Q. Had you finished that Texas common point proposition in

that explanation?

A. Yes, sir.Q. Take up the next map.

A. I have Exhibit 41, covering zone rates on cotton seed products, from Arkansas and Louisiana producing territory to points in Missouri and Kansas; we found that that tariff was actually in operation, and that there was a blanket rate of 17 cents from various points in the cotton belt—cotton oil mill belt, to a lot of stations in Missouri, and we found enough to show us that the rate was a blanket rate, but the movement was light, and I am not familiar with agricultural conditions in Arkansas, so I do not know whether that was due to the fact that we were looking for information in the wrong season, but we confined ourselves to the same month that we made our other figures on, and we found a very light cotton seed movement. I might say that what did move during the course of the fifteen days we figured on—25 cars of that—the blanket rate of 17½ cents was applied, on hauls ranging from 256 to 598 miles.

The movement was light, cotton seed was not moving ap-

parently.

3479 Exhibit 43, covering blanket rates on cotton from Arkansas and Louisiana, Oklahoma and Missouri to the eastern seaport points, principally to Boston and Boston rate points, quite a heavy movement of cotton, but the zones from which cotton

moves on blanket rates were not large.

There are some striking illustrations, as for instance, out of a 75 cent rate from Newport to Boston, the Iron Mountain got 40 cents to St. Louis; it got 45 from Little Rock, 45 from Pine Bluff, 42 miles further south, and 45 from McGehee, 102 miles south of Little Rock. It got 55 cents from Ft. Smith, and cotton was hauled through Little Rock on its way to St. Louis, hauled about 165 miles further for a ten cent high rate; and there was quite a heavy movement from McGehee and Pine Bluff and Little Rock, and the points I have mentioned, and the range was not so much but it is a blanket rate, as I have stated.

Q. That is the originating end you are speaking of?

A. Yes, sir. That would not affect the Iron Mountain earnings because their portion to St. Louis is fixed, the arbitrary is to St. Louis, and the allowance east is a certain proportion of the rate—it is the balance of the rate.

Q. That would tend to show that the allowance east of the river also reflected the cost of service, by hauling it a thousand miles fur-

ther to one point than to another?

3480 A. I think I stated that proposition exactly backwards; the lines east get 35 cents and the Iron Mountain gets the balance of the rate.

Q. How wide a zone is that in the east?

A. The short line mileage from St. Louis to New York is 1053 miles, and Boston is a little further.

Q. What is the widest scope of that territory that they got 35

cents for?

A. It has been so long since I have worked on eastern rates, I don't know that I can tell exactly; it takes in quite a large zone around Boston, and points north of Boston.

Q. They get that 35 cents whether it goes to Boston or Portland,

Maine?

A. Whether it went to Boston and went through the expensive Boston terminals and went out to some point north; I don't know where the rate breaks, whether it is St. Louis or East St. Louis.

Q. The rate so far as we are interested in it, is 45 cents to St.

Louis?

A. Yes, sir, from Little Rock, Pine Bluff and from McGehee. Q. Take a shipment like this—what did you say was the rate from Ft. Smith to St. Louis?

A. 55 cents.

Q. Rather, that is the division?

A. Yes, sir, the Iron Mountain's proportion.

Q. Suppose instead of that cotton originating at St. Louis, it originated at Paris, Arkansas, 43 miles from Ft. Smith?

A. I don't know as to that; our tariff which we had, only covered Iron Mountain stations, and did not show that, as Paris is not on the Iron Mountain.

Q. Take some other Iron Mountain points to illustrate the ques-

tion, say Salisaw in Oklahoma?

A. The proportion of the rate from Ft. Smith is 55 cents; the rate from Salisaw, the Iron Mountain proportion of the rate would be sixty cents; as the haul increases the rate increases there; there is not as wide a range in these zones as there is in the lumber zones.

Q. They get five cents from Salisaw to Ft. Smith?

A. Yes, sir.

Our motive in discussing these propositions was this: We had asked Mr. Perkins to put in these maps after comparing the rates; we had no knowledge when we drew these things up from the tariff as to whether there was any movement under them; we did find, as I have detailed, we did find a lumber movement, and I investigated them all to see whether the movement was heavy or light and have made the showing.

Q. In Exhibit 38, the rates on grain and grain products from Missouri-Pacific stations to some Iron Mountain stations, shown on

the map, what about that?

A. The forwarding territory, the producing territory, is marked as **Zone** "A" on the map, and the consuming territory, to which the rate applies, is marked "B."

We found that there is a rate published in the tariff of 19 cents on corn and articles taking corn rates, which I will

detail:

From 157 Missouri-Pacific stations in Missouri and Kansas, to each of 369 Iron Mountain stations in Missouri and Arkansas, that blanket rate of 19 cents applies, according to the tariff, on 45 different commodities.

We find a 23 cent rate on wheat and articles taking wheat rates

from the same territory to the same territory.

The corn rate covers 45 different commodities, as I stated before, and their comparative weight and bulk, value and casualty risk is

rather interesting.

For instance, under the head of casualty risk, a good many of the manufactured or partially manufactured articles, cereal articles, included in these corn rates, take the same rates as raw corn, and they are much more liable to damage in transit, although raw corn is subject to wet and rust; while it is true that new corn will heat and spoil, a car with a leaky roof might ruin a whole car of cereal products. We find under that head, rolled oats, oat meal, rye flour, chop feed, cerealine, and corn meal. It seems to me that those articles—and the tariff did not restrict the shape in which they should be packed, they might be packed in paper boxes for instance—would be much more liable to damage than corn itself, or oats; although oats takes the corn rate, the waste space in loading

which has been dwelt on at some length, is marked; oats 3483 takes that corn rate; corn for instance, weighs 56 pounds per bushel; you can load the car's tonnage capacity in a given number of feet of car space, which is less than the space occupied by an equal quantity of oats, as oats weighs but 32 pounds per

bushel.

Going back to the time that I was interested in furnishing cars to elevators, I recall that we used to load oats to the roof of the car without danger of overloading, but we did not dare do that with corn; we could not load corn above two grain doors, and that that was expected by the traffic men who made the tariff, is further indicated by the minimum weight specified; the minimum weight on corn is 40,000 lbs. for a car, while the tariff specifies a minimum of 30,000 lbs. on oats; the car's capacity being but 40,000 lbs., they expected to get 40,000 lbs. of corn in there, and but 30,000 lbs. of oats.

Q. And the same rate applies for both?

A. Yes, sir.

Again, on oat hulls, I should imagine they would be lighter than oats. I haven't any figures on that, but they take the same rate.

The movements under that tariff—there was quite a little of it—was found to be from Washington, Missouri, Herman, Holden and Independence, some from Omaha, Neb., some from Leaven-

84 worth, Kansas, some from Atchison, Kansas.

We took the main line billing on the Missouri Pacific and Missouri River points, and found it moved in quite large volume; it is not quite as large a volume as in the case of lumber, but the movement was there. The tariff was not what would be termed a paper tariff.

Q. The commodity did move?

A. Yes, sir. Q. Go ahead.

A. While we were investigating that proposition, we found some other movements through the zone, through the consuming zone in Arkansas and beyond, from these stations up here in Missouri, at lower rates than zone rates.

Q. It cost less to haul it from there.

A. The rate on flour, which by the way took the wheat rate, from Herman, Mo., to McCrory, Ark., is 23 cents. We found flour moving from Herman, Mo., quite a little of it, moving right through McCrory, Arkansas, into Memphis at 12 cents; in fact, it went right through there to Jackson, Mississippi at 22¢, in connection with the

We found a lot of flour moving from Independence, Mo., on which the rate to Arkansas in the zone was 23 cents; moving to points in the southeastern territory through Memphis-Atlanta, Augusta, Asheville, N. C., and points in Georgia and the Carolinas.

at 14 cents for the Iron Mountain's haul from Independence to Memphis, although the rates to points in the zone through 3485 which the shipments would pass, was 23 cents.

Q. The cost of service was very nicely represented there.

A. Yes, sir-not only on the Iron Mountain, but to points in the southeast; I find the same proportion allowed lines beyond Memphis in half a dozen common points in the Southeast, Atlanta, Augusta, Marietta, etc.

Q. Let me see if I catch that; the revenue the Iron Mountain got from some point up in the producing territory to McCrory, Arkansas was 23 cents; if it went to Memphis through McCrory, the Iron

Mountain got 14 cents?

A. Yes, sir, when it was destined to Southeastern territory. Q. What is the next map you have, Mr. Hamilton?

3486 A. That exhausts the maps. Those were put in evidence by

Mr. Perkins-Q. Have you not a citrus fruit map there? A. Yes, sir.

Q. I believe there are some matters out side of the maps in connection with those movements of which you made memorandum: Probably I had better take those up before we go to the citrus fruit.

A. I have some other items here, some lumber figures

On the proposition of citrus fruit rates: from the Pacific Coast fruit belt. Applying through Arkansas, to the territories in the East, with the exception of Texas, the same rate applies from the entire Pacific Coast fruit belt, on lemons, to practically every station in the United States East of the Cascade range of the Rockies.

There are exceptions to that, but I have here a tariff which Mr. Perkins very kindly furnished, "The Trans-Continental Freight Bureau Eastbound Special Tariff on Citrus Fruit in car lots."

That tariff bears the Missouri Pacific number indicating that the

rates apply via its line, which I am informed they do, the Iron Mountain number being 5118-R. The tariff was effective during the latter half of 1907.

It names rates of \$1.00 per hundred pounds on lemons, 3487 to Colorado common points; Missouri River common points; Mississippi River common points; Chicago and common points; Cincinnati; Detroit and common points; Pittsburg; Buffalo; New York; Boston and common points.

The tariff refers to another publication of the same Bureau, which describes in detail the common points or territory of which these are

the descriptive titles.

Taking that tariff we find that there are some exceptions to the application of the rate to several points East of the Rocky Mountains, except Texas, in the first instance, but they do apply to all points in Maine, Vermont, New Hampshire, Connecticut, Rhode Island, Massachusetts, New York, New Jersey, Pennsylvania, Maryland, District of Columbia, Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, and to portions of Virginia, West Virginia, Tennessee, Kentucky, Alabama, Mississippi, Arkansas, Louisiana, North Dakota, South Dakota, Nebraska and Colorado.

Q. Now, take the practical effect of that upon our interstate rev-

enues:

Suppose a shipment of two cars of oranges is made from Los Angeles, one stopping at Little Rock and the other at Boston—

A. The rate I quoted was \$1.00 on lemons. I would like to add here that the same kind of blanket rates apply on oranges and grape fruit, in car lots, or oranges and grape fruit mixed with lemons,

\$1.15 to all of the points I have enumerated, except Colorado common points, to all of which the rate is two and one half cents less, according to this tarif." That takes in the points in

Colorado, known as "common points."

Q. Take that illustration on the two cars shipped out of Los Angeles for the East, one stopping at Little Rock and the other going to Boston?

A. As I recall it, Mr. Ludlam put the different mileage on those

hauls in evidence. I have not the figures here now.

At any rate, it is apparent that the haul from Los Angeles to Little Rock would be 1398 miles shorter than the haul to New York, passing through St. Louis.

From Little Rock to St. Louis is 345 miles and the short line mile-

age East of the River is 1053 miles.

Q. What would be the effect of that upon the revenue that would

go into their accounts in the case of those two cars?

A. Somebody would have to shrink; either the Southern Pacific, the Texas & Pacific, the Iron Mountain, or the lines East of the Mississippi River. I haven't the division and don't know where the shrinkage occurs.

Q. That is not material. There is bound to be a shrinkage owing to the difference of more than one thousand miles and the difference

in the haul for the same price.

A. Yes. For instance, take the lemon rate-I say "lemon rate"

because the Colorado common points take the same rate ex-3489 cept on oranges—the lemon rate from the Pacific Coast to Denver would be the same rate as to Boston.

The same rate would apply to Omaha, Nebr., as to Portland,

Maine.

The same rate would apply to Topeka, Kans. as to Philadelphia. The same rate would apply to St. Paul, Minn. as well as to Buffalo,

N. Y.

The same rate would apply to Little Rock, Ark. as to Trenton, N. J., to Chicago as well as some point in Rhode Island, say Providence; it would apply to Duluth, Minn. as well as Detroit; to Lincoln, Nebr. as well as Washington, D. C.; it would apply to Memphis, Tenn.

as well as New York City.

I just want to say in that connection, that that goes to the general proposition of rate making and I think it is only fair to state that there was, during our period here, a light movement of citrus fruits over the Iron Mountain. Whether the season of the year was responsible for that or not I do not know. There was some, but it was light.

Q. Now, Mr. Hamilton, take up the next matter there.

A. There are some other movements from the Pacific Coast of somewhat similar character, such as dried fruits; canned goods and vegetables; dried beans, celery and some fresh vegetables, that

3490 move on somewhat similar blanket rates.

The tariffs are lined up the same way and cover practically

the same territory.

I have some movements here over the Iron Mountain rails, but there are not any great majority of them.

Q. Substantially the same kind of rates as the lemon and orange

rate?

A. Yes, sir. Just as an illustration: Here is some dried fruit. I have some twenty two cars in the first half of October, and find there

is a blanket rate of \$1.25 applying to Southeastern points.

For instance, here is a shipment of raisins from Fresno via El Paso, Texarkana, on the Iron Mountain to Memphis and delivered to the Southern Railway there at \$1.25 through to Knoxville, Tenn., on which the rate from Fresno to Memphis is 90 cents from the coast to Memphis.

On an exactly similar shipment destined to Atlanta, Ga., the rates from the coast to Memphis was 83 cents, the balance for the line

beyond.

Q. Then it depends on what the destination is beyond the River, how much it costs to carry it to the River in those instances?

A. Those are types. I have about one hundred cars, all told, of

those various commodities.

- Q. You had some lumber illustrations there, outside of the zone?
- A. In investigating the movement under the rates carried in our maps, we found quite a large movement where the rate shrank at both ends.
 - Q. The cost of service got less at both ends?

A. I cannot say as to that, but varying proportions were allowed the lines beyond the Iron Mountain-Missouri Pacific rails, as well as to the lines originating the business and giving it to the Missouri Pacific. The through rates being the same, the shrinkage necessarily came in in the intermediate haul, which in this case was by the Iron Mountain and Missouri Pacific.

Here is a movement of about 184 cars from the same lumber producing territory as we have discussed under our map, to Kansas City, but all of which originated on connecting lines in the producing ter-

ritory and went to connecting lines at Kansas City.

Q. Kansas City was not in the connecting zone?

A. Oh, yes, but this stuff is going beyond Kansas City and did not move on the zone rate.

Q. It went to some point ultimately beyond the zone?

A. Yes, it went to Sioux City; Denver; Manhattan, Kansas; Colorado, and Nebraska points; Missouri points—those catch my eye from the detail here.

As showing the non-relation to cost of service of these rates, or at least some of them—I do not know which ones—I would like to make some comparisons from possibly 200 cars I have here.

3492 We found a movement from Alexandria to Kansas City, 812 miles, originating on various lines beyond Alexandria and destined to points on various lines beyond Kansas City.

The shipments were all of like character, consisting of pine and

cypress lumber.

The Iron Mountain haul in each instance was the same, but its revenue ran the scale like this—these are cents per hundred pounds: 11 cents, 12 cents, 12½ cents, 13 cents 13½ cents, 14 cents—

Mr. MOORE:

Q. Can you not give the destination in connection with each of those?

A. I can, sir, but it will take some time to dig it out of here.

Mr. MOORE:

Q. Well, never mind then. We can get that later.

The WITNESS: Each of these is indicated here by the number of the wavbill under which it was transported.

To continue with these figures—13½ cents, 14 cents, 14½ cents and 16 cents.

o come

Mr. HILL:

Q. For exactly the same haul on the Iron Mountain rails that was the varying revenue received?

A. The Iron Mountain hauled 812 miles from Alexandria to

Kansas City for those varying rates:

Two cars of lumber at 11 cents; two cars at 12 cents; one car at 12½ cents; eleven cars at 13 cents; three cars at 13½ cents; seven cars at 14 cents; one car at 14½ cents; two cars at 15¼ cents, and two cars at 16 cents. Which of those rates reflects

the cost of service I am not qualified to state, but it appears, even to a layman, that all of them, as a matter of logic, cannot.

Q. You have a memorandum of the way bills reflecting each one

of those movements?

A. The number, date and full description, showing the destination and the division allowed the line at both ends. That is the

Alexandria illustration.

Now, this is a case, Judge Hill, where all these cars were received from connection at Alexandria and all were delivered to connections as Kansas City. Absolutely no difference in the service required.

The difference, if any, might be in the cost of service in delivering the car at Kansas City as between one line to another, but I do

not know that that exists.

Q. It is not provided for in the tariff, if it does exist?

A. No, sir.

Now, take Smithton, Ark.; 600 miles from Kansas City:

We found two cars moving at 9 cents; three cars at ten cents; seven cars at eleven cents; nine cars at twelve cents; four cars at thirteen cents; one car at fourteen cents; three cars at sixteen cents, running from nine to sixteen cents.

We found at Prescott, Ark., 618 miles to Kansas City:

Sixteen cars at eleven cents; one car at twelve cents; six cars at thirteen cents; nine cars at fourteen cents.

Now, comparing the differences in the haul, those are similar

hauls at different rates.

We found the thirteen cent rate from Benton, Ark., 545 miles:

The same rate from Perla, 565 miles; The same rate from Smithton, 600 miles;

The same rate from Prescott, 618 miles;

The same rate from Hope, 633 miles.

Now, each of those shipments that I have indicated—and there were several cars on most of them, moving at a thirteen cent rate for varying lengths of haul, from 445 to 633 miles—would cover the most distant ones—in other words, they are on the same main line of the Iron Mountain, Benton being the most Northern and Hope being the most Southern, the rate being level.

Q. It did not cost them anything to move it from the various

points until it go to Benton-

3495 A. I found fifteen cent rate on four cars from Benton, 445 miles, and an eleven cent rate on two cars from Alex-

andria, 812 miles.

Except for twenty four miles, from Benton to Little Rock, those cars beyond Little Rock will travel over the same track. There is no difference so far as I know, in the operating conditions. There are many other illustrations here, and here is the other side of the proposition showing a much higher rate than even the Benton rate: 20 cents from Texarkana, 665 miles, as against eleven cents from Alexandria, 811 miles.

I have not enumerated them all (there are 184 cars on this sheet) but those are typical of the others, and they are all repre-

sentative of actual movements of lumber for which we have the waybill number, the date and the billing station.

I found along similar lines business moving from this same producing territory at Pueblo, and a comparison of the length of haul there would be interesting, I think.

I found stuff moving from Smithton, Ark., to Pueblo, 1022

miles, short line mileage, on a rate of 16 cents.

I found a 16 cent rate from Smithton to Kansas City, but 600 miles.

I found on business moving to Milton, Kansas—the Iron Mountain accepted on lumber for delivery to the Kansas 3496 City, Mexico and Orient, hauled from Monroe, La., at rates

varying in proportion from 161/2 to 191/2 cents.

I found traffic moving through St. Louis, originating beyond the Iron Mountain, from the small lumber roads, and destined beyond St. Louis, moving from Hope, Ark., 458 miles, at 71/2 cents, 11 cents, 111/2 cents and 13 cents.

The total rate from Hope is 18 cents alongside of the 7½ cent

Q. There could not be very much parity of rates between seven

and eighteen cent lumber, hauled side by side.

A. The only explanation I can see, if they both represent the cost of service, is that the terminal service ate up pretty nearly twothirds of the rate.

That covers the lumber situation. I have not given all of the It is rather lengthy, but that typifies the rest of it.

Q. You have for inspection the data showing those movements? A. Yes, sir, it is all here.

Q. What is the next?

A. We went into the cost of service proposition.

Q. Mr. Hamilton, there has been a great deal said in this testimony about the parity between the state and the interstate rates, the relation that exists between state and interstate rates:

Have you made any examination as to that parity or re-3497 lation, or whatever it may be called, existing between state rates and interstate rates?

A. Yes, sir.

Q. Give us the results of some of your illustrations?

A. Mr. Watson, and perhaps Mr. Perkins, or Mr. Flippin, one of the gentlemen from the Traffic Department of the Railroad interested here, as I recall it, said that the Arkansas distance tariff issued by the Commission dominated the rate from Memphis into Arkansas points, and that the Memphis rate was a bridge toll That is, to get a rate from Memphis to an Arkansas point, they added a bridge toll to the distance tariff from Bridge Junction on the West side of the River opposite Memphis.

Taking that proposition first, I have made a graphic chart covering the rates from Memphis to the line of the Iron Mountain, extending South from Little Rock, some seventy miles, to Arkadelphia (actually to Gum Springs, the station beyond) and commenting upon the statement that Memphis rates were based on the Arkansas rates, plus a bridge toll—that they were made that way—I found that the first class rate ran level across the chart-—

Q. That is interstate?

A. Yes, sir.

That is, that the rate is seventy cents from Memphis to 3498 each of these twenty seven stations shown on this chart, which are seventy miles apart. That is, the most Northerly one is seventy miles from the Southern extremity of the route.

I found the Commission distance tariff beginning at sixty cents and mounting step by step until it reached seventy six cents, a

fluctuation of sixteen cents.

Q. Owing to the distance?

A. Owing to the distance. It is graduated according to the dis-

tance. The rates are made in five mile graduates.

The rates published by the railroads from Memphis to these points, on first class, are absolutely level. That is, the seventy cent

rate applies to the entire group.

The distance tariff rate, which I have compared with the Railroad interstate rate, is the rate from Bridge Junction, and would be, according to Mr. Watson's statement, the railroad's rate less the bridge toll. The bridge toll does not fluctuate. There is no distance element in it. It is an arbitrary toll. So that if the interstate rates published by the Railroads were based directly on this state rate, they also should fluctuate. As a matter of fact, the chart shows they do not.

The same is true of second class, which is absolutely level across the chart, on the interstate rate, and goes from fifty three to sixty eight cents in the standard distance tariff of state rates.

On third class, the interstate rate goes 37 miles before it begins to climb, and then climbs, the last time thirty three miles, some six points; while the state rate begins at 45 cents and climbs in the direct relation to the first and second class state rates

until it reaches 57 cents at the last station in the group.

The fourth class interstate rate runs 52 miles level before it begins to climb, although its predecessor, the third class rate, began to climb after thirty seven miles, and it ultimately climbs four cents; while the state fourth class rate, which is now, as it starts with the first station, a cent higher than the interstate fourth class, although the first, second and third class interstate rates begin on a higher level than similar state rates.

This state fourth class rate climbs all the way and is graduated according to distance, starting at thirty seven and reaching forty

three.

Now, on Class A, which in these tariffs is higher than fifth class, and is therefore mentioned first, we find the interstate rate again absolutely level, although some rates between it and second class, which are absolutely level, have been graduated.

We find the state Class A rate graduated according to dis-

tance.

3500 The same is true of the interstate fifth class rate. It is level, while the state fifth class rate is graduated according distance.

The state Class B rate is graduated almost exactly, relatively, to the other state rates, while the interstate Class B rate goes some 37 miles before it begins to rise.

3501 The state Class C rate is graduated, as is also the interstate Class C rate. There is some resemblance to the graduation on that one rate.

The same is true of the Class D, on the state, but not the interstate. It travels level for fifty-nine miles before it begins to rise.

The two Class E rates are most relatively graduated.

I should say that it is apparent there that there is no relation in that set of rates, between the state rate and interstate rate, for the reason that while the interstate in most instances is level—that is, is the same to the first station as to the last station in a group, the extremes of which are seventy miles apart, the state rate is graduated according to distance.

Now, as to the other phase of it, as to there being an internal re-

lation between the interstate rates:

Something has been said here, for instance, that the fourth class should be a certain percentage of the first class, if rates were scientifically made—take these interstate rates: we found first-class absolutely level: second-class absolutely level; the third class graduated; the fourth class graduated; Class A absolutely level; fifth class absolutely level; Class B almost so, rising at the last two stations on the group.

If there is a relation between the level rates, there certainly 3502 can be none between them and the graduated rates.

I am speaking from the chart—in this chart we have shown the names of the stations to which the rates applied.

Q. Have you carried any commodities on that chart?

A. Nothing but class rates on this chart. Down the side we have shown the rates per hundred pounds, in cents; each square across the chart represents a station; the graduations are shown in that way——

Q. I wish you would attach that chart as an exhibit.

The chart referred to is accordingly marked "Defendant's Exhibit C-1, T. A. Hamilton, 6/17/1910. M. J. C" and is in the words and figures following, to wit:

For Exhibit "C-1", see Volume 9, page 5853.

3503 Q. Have you made any comparisons of the relation to the St. Louis rates?

A. These are St. Louis rates that I have in this (indicating) chart. On the other chart we have shown only class rates and have shown the state and interstate rates on the same chart; that is, on the same page of the chart.

Here we have shown both class and commodity rates and have shown the interstate rates on one side and the state rates on the

other.

The St. Louis rates, of course, are interstate rates, and are for the whole distance from St. Louis to these points in Arkansas indicated on the head of the chart.

For purposes of comparison, we have set against them state rates which apply for the distance that these interstate rates would cover, in the state of Arkansas. That is:

Here is the rate from St. Louis to Arkadelphia. The haul in Arkansas on that is 226 miles. Against that I have set over here

(indicating on chart) the 226 mile distance tariff rate.

Inasmuch as the division of the rate is not in question, but only its relation, and further, inasmuch as the Iron Mountain in dividing the revenue derived from these St. Louis rates, divided on a track mile basis, the comparison holds good for any mile that the freight travels over.

Q. Now, please explain what you have on that chart. 3504

A. The first class rate from St. Louis to stations-from the asylum in Arkansas, which is the first station south of Little Rock, to and including Gum Springs, the first station south of Arkadelphia.

The first-class rate is \$1.00 to all those stations from St. Louis.

Q. That is represented by a level line? A. Yes, sir, and so marked on the chart.

The state rate for the same haul in Arkansas is set opposite that and graduates from 64 to 77 cents.

Q. Graduating according to distance? A. Yes, sir.

The second-class rate from St. Louis to these points is eighty-five cents, to all of them-a level line across the chart.

The Distance Tariff state rate graduates.

The third-class rate, interstate, travels thirty-seven miles before it

is graduated.

The third-class rate, state, closely follows the first and secondclass rates, state, graduated all the way.

Mr. MOORE:

Q. You mean interstate?

A. No, the interstate does not. The state rate preserves, in a measure, the relation, but the interstate does not-two of them are flat and the next one is graduated on the interstate.

3505 The fourth-class interstate rate runs out a distance of 214

miles before it begins to rise.

The fourth-class state rate is graduated all the way, although not so markedly as its predecessors, the other three rates.

The fifth-class rate, interstate, is absolutly level.

The fifth-class rate, state, is graduated. Not as markedly as its predecessor, but graduated according to distance, nevertheless.

The Class A rate, interstate, parallels the fifth-class rate and is absolutely level.

The Class A rate, state, is graduated.

The Class B rate, interstate, does not begin to rise until it has traveled thirty-seven miles.

The Class B rate, state, is graduated in the first eight miles and goes up—that is, the first ten mile group.

The Class C rate, interstate, runs forty miles before it begins to graduate.

The Class C rate, state, is graduated exactly as is the Class B rate,

beginning in the first ten miles.

These other rates speak for themselves and show that while a great many of the class and commodity rates, interstate, are blanket rates or level rates, the state rates are all graduated, preserving a closer internal relation between the various state class and commodity rates

than there is preserved between the interstate, and lacking 3506 a proper internal relation of each, I fail to see how there can

be any relation between the two sets of rates.

Judge HILL:

Q. Have you some commodity rates there?

A. The commodity rates are on agricultural implements, less than carload. That is an absolutely level rate, interstate. In fact, it is really the second-class rate, although it is published as a commodity rate. The same rate, state, is graduated exactly; that is, the second class rate follows it all the way, step by step.

Q. That is, a relation of a flat rate with a graduated rate?

A. Yes, sir.

The carload rate on agricultural implements, interstate, is graduated all the way, but the less than carload rate on these im-

plements is a flat rate.

If the relation between carload and less than carload, interstate rate on implements, at the first station, was correct, then the relation at the last station is distorted, because there is not a level rate on the less than carload, while there is on the carload. To put that into figures:

The less than carload rate from St. Louis, on agricultural implements, say to Mabelvale, Arkansas, is eighty-five cents. The carload rate is thirty cents. Now we go to Arkadelphia and we find the less than carload rate still eighty-five cents, but the carload rate

has gone from thirty to thirty-nine cents. In either one

3507 of those cases there is some distortion of relation.

Q. I expect there is a physical condition down there that makes the handling of carloads very much more expensive than less

than carloads over that particular piece of track.

A. I should say that there was some commercial necessity for a lower carload rate to some of those points near Little Rock that there was further away. What it is, I do not know, but that may be the cause in the change of the relation.

Now, comparing carload and less than carload and showing that this tariff is not related, the same statement holds goods on "bag-

ging and ties."

The carload rate is a level rate of nineteen cents to each of these twenty-seven stations, while the less than carload fluctuates

from thirty-nine to forty-six cents.

If there is a definite relation, whatever it is, between that carload and less than carload "bagging and tie" rate, it is not apparant at just which of these two points that relation is.

Q. The parity has gone awry?

A. If it is there to begin with it is not there as you go down the line; or if it is there at the end, it was not there in the beginning.

Q. You don't know whether the parity belongs to the first or the

last end-

A. No sir. We have a similar condition on the "canned goods," but in this case instead of it being the carload rate that is level, as in the case of the "bagging and ties" it is the less than carload; the carload fluctuates and disturbs the relation.

We have a level rate on salt, less than carload, the same to each of these stations, while the carload rate fluctuates, just as in the cases

of others I have spoken of.

Now, in the state rates it is true that the implement rate, for instance, less than carload, is not graduated exactly as the carload is, but there is some graduation in both and they more nearly approach a relation of some character than the interstate rates 15, because they — both graduated, while in the case of the interstate one is level and the other graduated. That is the point I had in mind. The lines on the chart speak for themselves.

Q. Will you attach that chart as Exhibit D-1? Are the numbers

there?

A. Yes, the tariff numbers are quoted on each chart. I have the tariffs here. They were very kindly furnished by Mr. Perkins.

Q. Mr. Hamilton, summing up your investigation of the reflection of the cost of the service in the rates, I wish you would state what conclusions you have reached as to how rates are made, as the result of your experience before you began investigating these cases, and the result of your experience after going through these cases to which you have heretofore testified?

A. Before doing that, I will attach this chart as an ex-

hibit.

3509

The chart last referred to is marked, "Defendant's Exhibit D-1, T. A. Hamilton, 6/17/10, M. J. C." and is in the words and figures as follows, to wit:

For Exhibit "D-1", see Volume 9, page 5855.

3510 A. Now, answering your last question, I would like to say in that connection, Judge Hill, that except in a perfunctory way, I have never been charged with the duty of making freight rates for promulgation to the public.

In my experience with the L. & N., I have been called upon in the daily exercise of my duties as a rate clerk and bill clerk, to make a great many rates on a combination basis, defeating pub-

lished through rates.

I gave a great deal of thought and study to the rate conditions in that territory—southeastern territory—for a good many years. I had to do it to earn my bread and butter. I saw those rates in their daily application, covering practically all the territory east of the Mississippi River and south of the Ohio and Potomac Rivers, and

I do not believe that there is a more complex territory, from a rate-

making or rate-applying standpoint, in the world.

Rates were made down there—or at least they appeared on their face to be made—so no sane man could understand the reasons for them. Certainly a great many of them were made without any relation to the cost of service. I would like to illustrate that just a little:

The Mississippi Valley tariffs to common points in the New Orleans group, carry from St. Louis a great many commodity rates.

For instance, the rate on soap from St. Louis to Mobile, 3511 was twenty-eight cents. The rate applied from the west bank of the river. The L. & N. paid the river transfer, as did all of its competitors, the Illinois Central, the Mobile and Ohio and the Southern Railway.

The rate to points directly north of Mobile, through which Mobile traffic would pass on its way from St. Louis, were almost double

the Mobile rate.

The shippers here in St. Louis would secure what we called "combination rates." They had the privilege of shipping their stuff to Mobile at twenty-eight cents and shipping it back at the local rate, making a much cheaper rate than the local rate to any intermediate point. As I recall it, those rates reached clear back to Montgomery. That is, we could make a combination rate cheaper than the straight of way local as far back as Montgomery, and not only that, but when you made the combination on Mobile, you made a St. Louis rate which absorbed a transfer. Your local rate was an East St. Louis rate, which did not.

That is just one illustration of a great volume of rates that we

made in that way.

I recall that we had a considerable movement of stoves into interior Georgia points, and we found that in the every day application of the rates we could make a cheaper rate by applying the rate

from St. Louis to Jacksonville, Florida, and the local rate 3512 back into the interior of Georgia, than the published straight rate to the interior point. That came about by the fact that the rate from St. Louis to Jacksonville is built on the rate from St. Louis to New York, plus the water rate down——

Mr. MOORE:

Q. Were those rates in force in 1907 and on these roads involved

in this litigation?

A. I think that the Iron Mountain—in fact, I know that at that time the Iron Mountain was a party to the same Mississippi Valley and southeastern rates. The Mississippi Valley tratic of the Iron Mountain passed through Arkansas, but their southeastern stuff went largely through Belmont, Missouri, or Columbus, Kentucky. I know we used to compete with the Iron Mountain for traffic—

Q. When were those rates in force?

A. When I last handled them was in 1905. I was explaining my familiarity with the application of rates.

Q. You are stating facts here now in regard to rates. I do not think it is competent to state such facts as this—

Mr. HILL: You had your witnesses stating their experience in Minnesota, Wisconsin, Canada and other places.

Mr. MOORE: But I did not have them stating details such as Mr.

Hamilton is stating.

Mr. Hill: I want Mr. Hamilton to show he had some dealings with rates.

Mr. Moore: I have no objection to that, but he is going into detail as to what the rates were on these lines—

The MASTER: That is the only way to show his familiarity.

Mr. Moore: I want to note my objection to his going into such details.

The Master: Very well.

The WITNESS: Another instance of making rates to meet the necessities of traffic, regardless of the cost of service, was a set of rates we had in another matter, East St. Louis to the Ohio River,

on grain destined to the southeast.

We got grain delivered to us at East St. Louis that originated west of the Missouri River, as I recall it, and if it was properly reconsigned through the Southern Freight Committee—virtually a milling-in-transit arrangement, we hauled it to Evansville, Indiana, for one cent, and if it originated in Missouri locally we got four cents for the same haul. If it originated in an East St. Louis elevator with no indication or surrender of tonnage beyond St. Louis, we got $6\frac{1}{2}$ cents for the same service.

We had what was known as a proportional rate on grain, which was the same as that. We had a connecting link between Henderson, Kentucky, across the river from Evansville and Louisville, which was much shorter than our own line through Guthrie—

The Master: The witness is now stating what occurred two years before, in the actual operation of another road.

Mr. Hill: Just leave out the illustration and state, generally, your experience.

A. It was along those lines, the handling of rates, not the making of them, their practical application to the every day traffic, and applying that division of them between our line and other lines; work of that character. The building up of rates where we found that the fabric of our through rates could be defeated by combinations. It required quite a study; not only of the railroad I was with, but all of our competitors in that territory.

That lasted some five years, that actual every day experience in meeting these problems and applying them to the freight traffic of

my employer, the railroad company.

I have listened with a great deal of interest to what has been said by the gentlemen in this case regarding rate-making and it coincides quite a little with my experience in applying rates, and I would like to summarize that with my best thought on the matter.

When a railroad traffic man states that the cost of service is considered in making rates, he undoubtedly has in mind the ideal con-

dition. But as a matter of fact, the basis of his rates, owing to the manner in which they are adjusted from time to time—patching a new rate on to the old—must necessarily be tradition and precedent, and it would be necessary for the origin of that tradi-

rate-making. Assuming that even at that time the first schedule of rates had a cost basis; that the road knew its costs and added a certain percentage of profit to that in making its freight rates—we would have to assume it knew its cost by actual commodities, but even that is doubtful, because the first railroads had to meet stage and wagon competition, as well as canal boat competition. Stages and canal-boats were there before we had any steam engines, and if they had to meet that competition they had to meet the cost ideas of the canal-boatman, the stage driver and the man who drove the freight wagon.

If that is the basis of the present rate fabric, and rates are made by readjusting and re-arranging, patching, extending and contracting existing rates, I feel that any traffic man will bear me out in my

statement.

That does not seem to be cost foundation, to begin with. If a traffic man has any idea at all as to the cost of service, it must necessarily express itself to him in some specific terms—he must have a unit, a yardstick to measure by.

The freight service rendered by a railroad consists of the movement of weight over distance, and as a usual thing, he takes a ton, or a fraction of a ton, as his weight unit, and a mile as his distance unit, and from those two he secures the ton mile. That is,

3516 if he has any idea as to cost, it is ton mile cost, and unless special tests are made, he has no specific ton mile cost by commodities. He has the average cost. He has the total operating expenses of his road, or the division of his road, divided by the ton mile of all classes of traffic, silks and satins, baskets and be trong, etc., as the case may be, and that is, under present day railroad statistics the only information he can have as to cost unless he makes a separate test as to the cost of each individual commodity on which he makes a rate.

Now, if we assume that the ton mile cost of transporting each individual commodity on a given line of railroad was known to the traffic manager of the road and he desired to make his rate based on that cost, plus his percentage of profit, it is a grave question how far he could go in that direction. Certainly, he could not go beyond the first junction where he met short line competition. He would have to meet his competitor there, and his cost ideas, or go out of business. He could not go beyond the first navigable stream where he would meet boat competition with rates made on a package basis in many instances, as in the case of many commodities between St. Louis and New Orleans, and St. Louis and Memphis.

The traffic manager's duty to his road is to build up the traffic of the road. That is what he is there for—to get something to put into the car, and to get out of the traffic all that he can, not only

3517 currently, in dollars and cents, but in future traffic.

He must foster the industries on his own line and protect

them in marketing their product. He must equalize not only local labor and raw material, supply conditions between industries on his own line, but protect them in their competition along those lines with industries on other lines. He must put them in the market if he wants to live, and if they want to live. If I may make the comment that would be excellent rate making to do that. That is what the railroad is there for, to handle traffic, to get traffic, and get out of it what you can. You have a plant there: make the fullest use of it. The fuller use you make of it the more you spread your overhead and fixed expenses. It would perhaps pay you to take stuff at what might be, in conjecture, an unremunerative rate, rather than run the empty car. The traffic man should preserve to the jobbing centers, their natural distributing territories. He aims to do that. Whether it is good public policy, I do not know. I am not competent to say, but from a railroad standpoint he aims to do that. He try-s to protect them in their markets and considers their geographical location one to the other, not only with relation to the consuming points which they serve, but also as to the manufacturing centers that they draw their supplies from.

It is a great question whether a traffic man could solve all these problems and meet so many different conditions of operation 3518 and cost on other lines, and so many other traffic men's ideas of what rates are profitable, and still adhere to a basis of actual

cost plus a percentage for profit.

Another thing we must consider is the question of reciprocal loading for his company's cars. He must endeavor to create traffic to reduce the empty car movement; and balance his tonnage movement as far as he can; keep his power balanced on the road and keep his empty cars filled.

To create traffic he must offer inducements to the shippers and his most potent inducement is a favorable rate, one that will open up

new industries and produce traffic to fill up the empty cars.

As a matter of fact, a traffic man gets out of such traffic as high a rate as he can, but he must be satisfied with what the traffic will bear, or the industries will not open and his cars will come back empty.

This reciprocal traffic must be considered, too, in making rates on business in the opposite direction where the volume of traffic is, where the predominating traffic is, as the fewer empty cars you have to haul back, the less burden of that empty car movements cost your outbound traffic will have to bear.

Rates to and from large territorial zones are made by freight committees and tariff bureaus, for all the roads operating in the territory affected, and while each road has nominally a voice in making the

rates so promulgated, still the views of all or the majority of those roads interested must be met and harmonized. If they did not do that they would not promulgate the rate.

Rates made in this way are applied by divers routes and the length of haul, and general operating conditions, I would say are seldom, if ever, the same on any two roads between any two given points. For instance, the rate from St. Louis to Kansas City, first class, has been for years and still is 60 cents:

The same rate applies, via the Alton, Wabash, Rock Island, Missouri Pacific, and even via the Burlington, via Hannibal-there is a difference in the mileage and in the way the roads are operated—

that is the point I was trying to illustrate.

Surely rates made on the bureau plan are not based on the operating cost of any one railroad interested. Rates so made often operate to keep down rates to an intermediate and strictly local points where the conditions and cost of operation are entirely different. I can think at the present time of no better illustration of that than the trans-Missouri rate. Many rates on the Wabash, for instance, from St. Louis to points between St. Louis and Omaha, are absolutely dominated by the Omaha rate.

The interstate commerce Act prohibits the charging of a greater rate for the shorter haul than for the longer haul over the same

road, in the same directions.

The Omaha rate of 60 cents from St. Louis is based on the 3520 Hannibal, St. Joe rate-at least, so I am told, and in any

event, it is the same as the St. Louis-Kansas City rate.

Combination rates are authorized by many railroads. the through rate to a given point for a longer haul, plus the local rate back to an intermediate point makes a combination that is lower than the rate published direct to the intermediate point.

It is plainly apparent that the cost of service is not considered in making both these rates. It may be considered in making up one.

That sums up what I gathered from the situation and listening

to the testimony of traffic men in this case.

Q. Those are the reasons, as you understand them, why there are other conditions and considerations than the cost of service that produce the rate factor?

A. Yes, sir.

Q. I believe you started with the assumption, or the theory that the rate did not represent the cost of the service, and you have given your reasons why it did not?

A. Yes, sir.

Q. Now, to go one step further: take the evidence that has been introduced in this case as to the rates-principally this which you have been developing-which it is apparent does not represent the cost of service in the instance given: I will ask you what is your

opinion as an accountant, based upon the experience that you have had in the accounting problem, of using the revenue derived from these rates, or rather, these two sets of rates, interstate and intrastate rates, to measure the cost of opera-

tion of business, state and interstate?

A. I would say in that connection that I agree most heartily with Mr. Nay. As I heard him say in this case, the value of the revenue basis is predicated or is dependent entirely on the assumption that

the rates are based on the cost of service.

I think that it is a plain proposition, and as a matter of plain logic, if your revenue is derived from rates which are not based on the cost of service, it is mathematically impossible to accurately divide those expenses on the basis of factors derived from that revenue. If there

is no relation between the revenue and cost, I cannot see how you

can use the revenue to divide cost.

Q. In your experience as an accountant, have you known the revenue basis to be used as a method of ascertaining the cost of production?

A. No, sir, never.

My first acquiintance with the revenue basis for dividing operating cost or cost of production was in the Missouri rate case where it was presented by the railroads.

Q. I call your attention to the further statement made by Mr. Nay, that the revenue theory was not only dependent 3522 upon the cost of service, but also dependent upon their being a proper relation of cost between the state rates and the interstate rates, and ask you, from your experience with the rate situation in Arkansas, whether there is such a relation in the state and interstate rates so that those could be used as the two vard sticks with which to measure the cost of service of that respective kind of busi-

A. There may be rates published effective in Arkansas, which are

built in that way, but they are few.

When you consider the whole rate fabric as I have found it in going through the company's way-bills, which are records of actual movements, as I have been illustrating from these lumber and other movements, considering it all, there is not any such thing. If there is, we have not been able to find it.

Q. Take, for instance, this: What relation could there be between the lumber moving interstate on these various tariffs that you have put into evidence and the lumber moving within the state on

standard distance tariff?

A. I think I have made illustrations this afternoon to the effect that the further you haul the lumber the lower the rate you can get. I know the standard distance tariff increases the rate according to distance.

Q. That makes the relation or parity between those an impossi-

bility.

A. Yes, sir, that is a good instance of it. 3523

Mr. HILL: That is all of the direct examination at this time, but I will reserve the right to recall Mr. Hamilton later, if necessary.

CONWAY W. HILLMAN, a witness of lawful age, being duly 3524 produced, sworn and examined, testified on behalf of the defendant as follows:

Direct examination.

By Mr. HILL:

Q. State your name, age, residence and occupation?

A. Name, Conway W. Hillman; age 53; occupation Public Accountant and President of the Mutual Audit Company of Louisville, Kentucky; place of residence, Evanston, Illinois; place of business, Paul Jones Building, Louisville, Kentucky.

Q. How long have you been in the business of a public accountant, Mr. Hillman?

A. For about four and one-half years.

Q. Prior to your work as a public accountant in what business were you engaged?

A. I left college-

Q. Just give a brief biography of your work, if you please. I will not interrupt you but ask you to go on and state in your own way.

A. In 1873, graduating from Dickinson, at Carlisle,

I went to Lafavette College in Easton, Pennsylvania, and took a course in civil engineering, graduating from there in 1874. 3525 In the Fall and Winter of 1874 and Spring of 1875, I

was engaged in engineering work on the Cumberland Valley Railroad, one of the Pennsylvania lines running southwest from Harrisburg, Pennsylvania, to Martinsburg, West Virginia, and also some engineering work for the Quincy, Alton and St. Louis railroad, then an independent line and now part of the Burlington system, I believe.

I then determined to enter the operating department of the railroad and went into the office at Carlisle, Pennsylvania, and acted as

messenger in order to learn the business of telegraphing.

I then went to Harrisburg, Pa., as telegraph operator for the Cumberland Valley road, in 1876—the date, I believe, was the first of May. I served the Cumberland Valley Railroad in various positions, as ticket agent, freight clerk, scales clerk, yard clerk, agent and as assistant dispatcher stationed at Harrisburg, Pa.

I then went to Chambersburg. Pa., the headquarters of the road, and was the superintendent's clerk, transferred very shortly to the position of assistant dispatcher at Chambersburg, the headquarters

of the road.

I retained that position until the Fall of 1880, when I resigned and took a position in the treasurer's office of the Northern Pacific Railroad, in New York City. My duties there were that of stock bookkeeper. I mean by that, keeping the record of the transfers of the capital stock of the road.

3526 Six months afterwards I was made transfer agent of the road and had charge of the transfers of both stocks and

bonds.

I worked in various capacities in that office for seven years, when I was elected assistant treasurer of the Northern Pacific road, with

headquarters in New York City.

In 1891 I was transferred from the New York office to the Chicago office of the Northern Pacific road, the Northern Pacific having then leased the Wisconsin Central and obtained control of the terminals in the city of Chicago, now principally known as the "Chicago Terminal Transfer Railway."

Their express business was transferred from St. Paul at the same

time and placed under my charge.

I served the Northern Pacific in this capacity at Chicago until 1893, when they went into the hands of a Receiver.

I then served the Receiver for eighteen months, until 1895, when

the control of the road having passed into other hands, I left there and took the auditorship of the Metropolitan West Side Elevated Railway Company in Chicago, which is an electric road, and the first—or almost—of its kind in the country.

I devised its system of accounting and placed this system in consonance, as far as possible, with requirements of the Interstate Com-

merce Commission.

3527 In 1903, the management of this road changing, I left

there.

I went back to the Rock Island road for a year—probably a few months longer than a year. I went to work in the Assistant Comptroller's office, under Mr. J. L. Kramer, who is now comptroller and vice-president of the C. H. & D. road of Cincinnati.

I had special charge in that road of the insurance matters, having been in that line when I was connected with the Northern Pacific.

I left there and attempted to establish myself as a public account-

After varying fortunes in this regard, I became connected with the firm of Baker-Vawter Company in their accounting department. These gentlemen have a large manufacturing interest in loose-leaf ledgers and labor saving devices, and incidentally to that they have found it necessary to establish an accounting department.

I stayed with them a year and four months and left them to take the position of Cost Accountant for the Indiana Audit Company, at

Indianapolis, Indiana.

I left the Indiana Audit Company after 60 days, owing to the fact that the Company was, as I found, an insolvent concern. They are out of business now so there is no harm in mentioning this

3528 fact. That is the reason of my having left them.

I then established, in connection with Mr. William H. Gleason and some Indianapolis men. The Mutual Audit Company,

the present incorporation.

At this time we obtained the work of the Kentucky Railroad Commission in their suit over the two cent rate and the reduction in freight rates and we found it desirable to move our headquarters to

Louisville, Kentucky, where we have since remained.

From that time on I have been almost continuously in the railroad accounting business for various railroad commissions, the exception being about three months of an interval when this work not being active, I engaged in our other branch of business, the general accounting work.

Q. Mr. Hillman, what railroad commissions have you represented,

if you have no objection to stating?

A. The Kentucky Railroad Commission, North Carolina, Alabama, Florida, Minnesota, Illinois and Ohio.

I have at present also been engaged (but have not yet done any

active work) by the Commission of Indiana.

I was also called into consultation for a short time in the Missouri Rate Cases, but my work for them was merely advisory and in the nature of stating what we could do provided we could have the time to obtain the necessary information. But as Missouri was unable to obtain this extra time we practically did nothing for them.

3529 Q. Your work has necessarily made you familiar, I presume, Mr. Hillman, with the "revenue theory," as it is commonly called, that has been adopted by the railroads in this case:

That is to say, they seek to divide the property devoted to state and interstate business on the basis of revenue received from each class of traffic and seek to divide the expenses of operation between each class of business—from the revenue received from each class of business:

I will ask you if you have given that theory any investigation and

thought?

A. Yes, sir; I have.

Q. I wish you would state your views in regard to it.

A. I consider the earnings or the "revenue basis" as an illogical

proposition.

I consider that it has been adopted in a number of cases and decisions rendered upon it because it was the only factor bearing upon that subject which had been presented to the courts, and necessarily the court, as I understand it, not creating its own factors, it was used. I, therefore, feel that in making this criticism I am not putting myself in antagonism with any decision of any United States court in making these criticisms.

3530 The first reason is that in the use of this factor, the earnings equalized the operating expenses; all matters are handled

on the same percentages.

This leads to the second point, that an unjust rate, one which is producing too high an operating revenue, would be enabled to perpetuate itself by having assigned to itself a high operating cost, and the converse of that proposition, which is that a non-renumerative rate, one causing a loss, would also tend to perpetuate itself by having assigned to itself a low operating percentage.

Also, the contention on the part of carriers of the inadequacy of a rate and the contention on the part of the State of the unjustness of a rate, would necessarily in each case, be measured by the yard-stick

that is in dispute, which is the earnings.

We can illustrate that, perhaps, by taking the comparison of roads having a longer mileage than other roads between certain points; that is, a road which is in competition for a large portion of its business with short line competitors. This road must necessarily spend more money in handling trains because it has a longer haul and, therefore increase the cost of what you might call the "haulage expenses" and it also must offer extra inducement in the way of equipment in order to obtain the traffic over its longer road, or it

must have more expert traffic men solicitors who can obtain the business for them, even under these adverse conditions, and such men come high and must be paid higher salaries

than the average run of trafficmen.

Yet, under this plan of the gross earning basis, the relative expenses on these two roads would be measured by the earnings and it alone.

This is quite forcibly illustrated in the Minneapolis and St. Louis road, which is one of the parties to the rate case in Minnesota.

This road is in competition with other roads for Chicago business. The route from the twin cities to Chicago is over the Minneapolis & St. Louis to Albert Lea; from Albert Lea to Chicago over the Illinois Central.

In handling the grain business from the west the Minneapolis & St. Louis, together with other roads, are compelled to grant a mill-intransit privilege at the various mills along the road, principally those

at Minneapolis.

The result is that on this rate the Minneapolis & St. Louis will take a carload of grain and haul it to Minneapolis at its local rate. If this car is destined to Chicago, or the product of this car after milling is destined to Chicago, the road is then compelled to haul this car from Minneapolis to Albert Lea, 113 miles, without receiving any compensation whatever, the entire proportion of that through rate going to the Illinois Central road. Therefore, on the carload

of grain passing locally from a point in Minnesota to Minnesota apolis, the M. & St. L. will collect the full rate. On another car going the same way, to Minneapolis, being milled in transit and then proceeding on its way to Chicago, they will obtain exactly the same rate, plus two dollars per car for the privilege of

milling-in-transit.

As the expense of milling-in-transit amounts to something, the practical result is that the earnings on a car from the western part of southern Minnesota to Minneapolis, and the earnings on another car from the same point to Minneapolis and thence southward to Albert Lea,—a distance of 109 miles—are the same, while the expense of handling must necessarily be larger.

This condition of affairs is borne out by the analysis of the M. & St. L. accounts and is used by me as an illustration of the unfairness and inadequacy of the earnings basis for a division of expenses.

Where this method is used, as it is often used by railway companies for the division of expenses, first adding an arbitrary varying from 15 to even 100% as an extra charge, or an extra cost of carrying intrastate freight over interstate freight, this inadequacy and unjustness of the earnings method is accentuated.

The usual method of applying that is to consider that it costs 15% more of the gross earnings to do one class of business than the other,

regardless of how those gross earnings may be made up, 3533 whether on a ratio of intra, two and inter, one; or whether

that ratio is intra-11/4 and inter-1.

To the earnings, intra, will be added the arbitrary percentage of 15% or more. To that result will be added the entire earnings and a repercentage taken of the total, and that repercentage is used in the case of this arbitrary addition of the amount which we assume to be 15%, as the percentage of expenses which should be charged to intrastate.

This is the method adopted by the Chicago & Northwestern Railway Company in their exhibits, in the case against the state of South

Dakota.

Q. Mr. Hillman, you are stating the matter too modestly for the railroads in this case: they charge from one to four hundred percent on the freight and 25 to 50%; on the passenger, intrastate, extra expenses.

A. I left a little margin. I said "15 per cent or more."

Q. It is the "more" proposition we are up against here. Did you finish?

A. I have finished concerning the expenses. I believe your question, if I recollect it correctly, also asked concerning the apportionment of the property—

Q. Before you go into that, I want to ask you a question on the

subject of expenses:

Has your attention been called to a claim of a parity or relation between the rates, state and interstate as affording a mean by which the two classes of traffic could be measured, the revenue produced from these rates? Have you made any investiga-

tion as to that phase of the question?

A. I have given no investigation to that phase of the question, personally. Of course, in the hearings where I have been, that matter has been up, more or less, and has been discussed, and I will say here, very much in the same manner of the showing of Mr. Hamilton

vesterday on the stand.

As an illustration, in showing graphically the rates which were in existence on railroads and which were proposed by the Minnesota Commission, I had made a graphic representation of those, using first class only, to show how they would work out. I had not presented it in the Minnesota case, but it was referred to in that by me in my testimony.

Q. Is there any such relation between them, so far as your investi-

gation as an accountant went-

A. No, sir: I should say there was not.

Q. This chart that Mr. Hamilton exhibited as showing the non-relation of the two, is in conformity to investigations you have made along the same line?

A. As I said, my investigations in that line have been quite limited. It is in conformity to other testimony which has been given and in which I was an auditor—or rather, a listener.

3535 Mr. Moore: Do you think that is competent evidence to bring into this case, testimony of what Mr. Hillman has heard in other cases?

Mr. Hill: No, not testimony, but information which he has gathered from the testimony.

The Master: He refers to that as being the foundation, the source of his knowledge.

Mr. Moore: Very well; if you take it that way.

Mr. Hill: I am not seeking to introduce testimony given in any other case

The Master: No: but the source of knowledge.

Mr. HILL:

Q. I wish you would express your opinion, as you started a few moments ago to do, about the division of property the revenue basis, and what in your opinion would be a proper basis on which to divide

A. In the division of property I do not consider that the revenue basis is the proper one to show the amount of the property used in

the transaction of the different classes of business.

I do consider that the expense basis is the proper basis for the divis-

ion of the property.

The reason for that is, that in making up the expenses which go against the different classes of business, I, in my methods, have used those factors which reflect the use of the property. I have used the tons, ton miles and train costs, under the varying conditions of

local and through.

3536 I have used passengers and passenger miles.

I have used the terminal expenses and endeavored in each case to use the factor which expressed the use of the property, the result being that when the operating expenses were assigned between the different classes of business, intrastate and interstate, passenger and freight, that those expenses reflected the use factors and therefore the property which was in use by the railroad company. However the value of that property may be determined as an entity is reflected by the expenses and by that factor only.

Q. Mr. Hillman, have you read any authority that represents your views upon this subject of the revenue basis, that you can en-

dorse as a correct statement of it?

A. Yes, sir.

Mr. Moore: I object to the question.

Mr. HILL: We have read into the record on both sides authorities to support opinions. Mr. McPherson commenced it by reading a good many statistics and statements from well known authors. There are several instances where you have done it and we have done it.

Mr. Moore: That is all very well as to statistics, but not as to The authors themselves are more competent witnesses as to their views. I could cross-examine the authors but I could not cross

examine-

Mr. Hill: Both of us put in Noves' work-I don't remember the name of it.

3537 The MASTER: That was not objected to. I think this would be incompetent in this connection.

Mr. HILL: What we want to read into the record is an opinion that Mr. Hillman called my attention to, what he says reflects his views on this subject, delivered by Judge Farrington, as an analysis of the figures practically as Mr. Hillman has analyzed the figures here, and it seems to me that it is very competent for a matter of that kind to go into the record in support of his views.

The MASTER: I do not think there would be any objection to his stating simply that he had read an opinion of Judge Farrington supporting his views. Go that far with it, but I would not read the opinion into the record.

Mr. HILL:

Q. Is this the opinion you have in mind—I will give the page number here—the Southern Pacific vs. Biatine, 170 Federal Reporter, page 725?

A. Yes, sir.

Q. Mr. Hillman, having given your reasons for discarding the revenue basis or theory of dividing expenses between state and interstate, I would like for you to state, without going into detail, the general principles upon which, from the standpoint of an accountant—by that I mean a practical railroad accountant—that such division should be made?

A. The general principles, as I have stated are to use those 3538 factors which show the use of property. I have taken each operating account, 108 of them I believe, and have assigned each of those operating accounts upon the use basis between the inter

and the intra-do you want the detail?

Q. No, first the general principle, and then we will go into the detail a little later. I want the underlying principle for doing that.

A. The underlying principle is that when an expense is intrastate, it is incurred for a certain purpose. That purpose necessarily is reflected by some portion of the railroad by the movement of a train, by the movement of a switch engine, by the work of the men on the platforms, in freight; the work of the men across the ticket window in the passenger; the agents' general work of way-billing, ticket reports; the telegraph man; dispatching; the operation of signals: repairs to the track; the maintenance of equipment, and each one of those is undertaken according to the work which is on hand, interstate or intrastate, and is measured by a certain factor which shows the relation of the inter and intra business accomplished under that special heading, and, therefore, it is divisible upon some factor which represents it, which factor we have taken in detail with each account.

Q. In other words, you would not use any one factor to determine the whole division, but use each appropriate factor for what you con-

sider the appropriate sub-division?

3539 Yes, sir.

Q. And work it out in detail in that way?

A. Yes, sir.

Q. Have you gone over the accounts filed by the State's accountants in this case; if so, I will ask you if those accounts recognize these underlying principles which you have just referred to and are

made in conformity therewith?

A. Yes, sir, they do. They have taken into account the use of the property by the different classes of traffic which passed over, and while I do not arrive at my results exactly by the same route that these gentlemen have taken I have, in the very short time which was at my disposal and the very limited amount of information which I had, roughly figured over the matter in this St. Louis Iron Mountain & Southern matter (which is shown on Exhibit "I-O")

and have roughly arrived at a result which adds \$30,000 to the

intrastate expenses as figured by the accountants of the state.

I will say that this amount, of course, might vary if I should work into the details of the account, but on this rough figuring basis I should say that I would increase their expenses not to exceed \$30,000, intra, for freight business, I should say. On the passenger business it would be practically a parity with their figures.

Q. On the whole, that would be an inconsequential matter, in

the matter of percentage in making the calculation?

I should judge it would make a difference of about probably one per cent in the return which they have figured on the property. It might be less than that, but I should judge, just thinking it over, that it would make about that difference.

Q. As I understand you, you in your work along this line and the state's accountants here have followed the same principle:

You have worked yours on a different detail from which they have, but they would reach the same result, with that difference you have referred to?

A. Yes, sir.

Q. I want to take up some of this detail: take the first account there—in the first place, I will say that in the first division the accountants just took the railroad company division of freight and passenger on a train mile, accepted their division and commenced their work after that, and then divided between the local and through: take "freight trains" and take "Maintenance of way and structures"; and car miles—what use is made by railroad companies of car miles as a factor?

A. In apportioning the divisions of the maintenance of joint tracks, yards and terminals, and very frequently in apportioning the operation of joint yards and the operation of joint tracks, what

is called the "wheelage" basis is used.

They count the number of wheels. By that, I mean the

number of cars, in and out of the station.

The reason that "Wheelage" was used is that it is one of the relics of old railroading, when they had four wheel dump cars against the eight wheel trucks; and we had some six wheel cars; so we got to counting "wheels" instead of cars. Now that is obsolete. We count cars but the old nomenclature of "wheelage" still hangs to the division.

Q. The car is the modern use of the same principle, is it?

A. Yes, sir.

3541

Q. Is that an accepted basis among accounting officials of rail-roads for such work as this as it was used here?

A. Yes, sir, I should say, generally, that that is the basis upon which the joint maintenance is divided. There may be some exceptions to those, but that is the general principle.

Q. I am speaking of the general principle: did you mention leased tracks from one road to another as one of the places where

this factor is used?

A. No, sir, only where the tracks are in joint use. The lease would be upon a track contract between the roads as to valuation,

and other matters, but where it is in joint use these expenses would be divided upon the wheelage basis.

Q. Now, Mr. Hillman, I wish you would take up this "Maintenance of equipment": that seems to be the proposition that 3542 our friends on the other side are criticising very much. I would be very glad to have you go through that with some detail.

A. On this "Maintenance of equipment" I find that the accountants for the state have first taken the expenses and divided them between yard, local trains and through trains.

This method of handling it altogether, with their percentages which they have added to each of these, is, to be a little trite, a "new one on me."

I had made the division of those accounts recognizing the switching but dividing the switching in the freight on the basis of the handling, counting it on the tons.

I had divided the rest of the expenses which are the road expenses, on the basis of the ton miles. I was anxious to see how that would pan out here and with the information I have, I ran that up. I find they charge on this basis to intra, in the neighborhood of \$76,000 for those "maintenance of equipment" items, included in locomotives and car repairs.

In my basis it amounts to a trifle over \$73,000.

Q. A difference of how much?

A. A difference of \$3,000, or approximately 5%, between the two methods.

Q. Our accountants were-

A. Your accountants' figures were higher than those that I would have placed had I been making the division.

I was very anxious to see how this would come out, as it struck me that they had allowed very liberally for the extra expense incurred by the damage done by yard locomotives to the equipment in the switching process. They have made a further allowance for extra switching done by locomotives on local trains, amounting to 75%. This is quite heavy, and in my opinion, it is a very liberal allowance to this factor.

Q. It is in evidence here that they attempted to take the maximum on all of these allowances that are shown in this head, and I will ask you if in your judgment that is true, that they were high

enough to be the maximum for these various items?

A. Yes, sir, I should say they are. I would further say that I have considered in the matter of allowing the switching, in my own division, upon the ton basis, that I was giving an allowance to the contentions of the railway Companies, and I have always felt in doing that that I wanted to place my figures beyond criticism and have therefore made that allowance on the ton basis. In doing so, of course, we ignore to a great extent the fact of switching of interstate tons at terminals, in making that division, but I think it is the best factor that we can get, unless we absolutely take the cars and their loading, which are switched at a terminal, and then apply that switching over the average length of haul, the ton mile basis,

which would be almost an impossible work to pick out after you have gone over an account. It could be kept at the time. 3544

Q. In other words, it would be reducing it to an exactitude that the effort would not justify?

A. I don't think it would justify it.

Q. Take this proposition or "Maintenance of Equipment":

I believe you say that you use the same principles in arriving at

it, but you follow a different detail:

Is this a sound proposition, the way they followed it-not whether it is the soundest or best-but is it a good accounting proposition the way it is handled?

A. Yes, sir, it is,

Q. By "accountant" I am always referring to railroad accounting, Mr. Hillman.

A. I understand.

Q. I am not certain, but I believe you referred to that 50% extra switching of local engines: did you refer to that when you were referring to these others or not?

A. Yes, sir, I did. I referred to the allowance of 50% and I understood that that was a maximum allowance. The only factor that I have to check to see if that is proper or not would be taking the time of a local train covering the same distance as the time of a through train on the road.

I find, looking casually at it, on the Arkansas Division, that the average of the through train runs there is a trifle over eight hours

on the schedule time.

That the length of the local run over the same division is 3545 10 hours and 15 minutes, which is practically an addition

of 25% to the time of the through train.

Supposing, of course, that those trains as a general proposition make their schedule time, or their relative schedule time, it would be the proposition that the entire extra time consumed by switching along the line, which the local freight does and not the through, would be 25%.

Q. They have allowed 50%?

A. Yes, sir.

Q. You got those matters from the official time card of the Iron Mountain Road?

A. Yes, sir, from the official time card.

Q. That should represent the judgment of the man who arranged the time card as to what should be done, should it not, Mr. Hill-

A. Yes, sir, and would represent to a certain extent what is done on the road, as a superintendent making up his time cards would not keep a time card in force wherein the train could not make its It requires too much work and entails too much expense, and you would naturally suppose that that had been the result of operating conditions as judged by the superintendent of that division.

Q. Now, I would like to call your attention to sub-division (C) there, under this "Maintenance of equipment, which is called "Supervision and General":

They are divided between local and through service on the 3546 basis of the direct charges for "Maintenance of equipment."

and ask you what you think of that principle?

A. It is the correct principle. That is, that the superintendence in any block of accounts such as "Maintenance of way and strueture"; "Maintenance of equipment"; "Traffic expenses"; "Transportation expenses", should be divided upon the basis of the other expenses which had been incurred in that division.

To this superintendence would be added such items as "Station-

ery and printing" and other expenses.

Under the block of "Transportation expenses" such items as superintendence; repairs of track tools and machinery; other maintenance of way and structure expense; stationery and printing; and injury to persons.

Under the block of accounts "Maintenance of way and struc-

tures"-

Q. I do not care so much about the detail of that.

A. They should be divided upon the basis of all the other accounts in that division which we have been able either to allocate directly to the account or divide between the different accounts on an approved-

Q. That is the principle which you have applied?

A. Yes, sir.

Q. I understand that these matters that you have enumerated are all there, so there is no difference in the detail?

A. No, sir.

Q. I would like you to explain that. That is used here in 3547 all of these applications and is also used in the—I believe it

is the fifth sub-division, the "General expenses"?

A. The same principle is applied to the block of accounts called "General expenses" for the reason that the duties of those officials and their assistants whose expenses are mentioned in that block of accounts, are to supervise and run the expenses which have been incurred up to that point, and therefore they are divided properly upon the expenses which have been brought from the other four blocks.

Q. Is that a recognized accounting proposition?

A. It is not, no, sir, generally recognized by railroad acountants. They still adhere to the arcade train mile basis.

Q. How is it in business and other enterprises?

A. That is understood in cost accounting that the overhead should be applied upon the basis of actual expenses incurred.

Q. Among what accountants is this principle usually and gen-

erally applied, Mr. Hillman?

A. The cost accountants, although there is a notable exception to what I mention, concerning railroads using it, which has just been filed in the Alabama case, or the L. & N. Railroad against the state of Alabama, where the principle of the division of these general accounts on the basis of the allocated or divided accounts has been applied in that case by Mr. Colson, the assistant comptroller of that system.

3548 Q. Then the railroads seem to be getting away from the prehistoric method of handling that?

A. (No answer).

Q. Now, take No. 3 "Traffic expenses":

You see there that these have been divided on a straight revenue hasis although it is stated they are of the opinion that this unduly burdens the intrastate business:

I wish you would express your views as to a proper method of division of "Traffic expenses."

A. If I express my views, I would read exactly from this paper, which I happen to have before me.

Q. You mean the state's exhibit? A. Yes, sir.

We have a set of expenses here for which we have no basis of division, unless a cost accounting method is introduced right into the traffic department and tab kept on the time that the men put in on interstate and intrastate work, and having no other basis for that, we are practically driven to the basis of dividing it upon the gross earnings.

I endeavored to get away from the gross earning basis where I can, but there is one case where I see nothing else but to use it, and certainly we are doing no injustice to the contention of the common carriers, the railroad companies, when we use that basis of division

of the accounts.

Q. What are your reasons for making that statement, Mr. Hill-

man? Will you please explain the matter.

A. A very large proportion of the intrastate business comes 3549 to the road without solicitation, or without being hunted The duties of the traffic department are to go out and obtain traffic for the Transportation department, to handle, and for the production of revenue.

In that, they go into competition with other lines, much more extensively in the interstate business than in the intrastate business for the reason that I have just stated that a very much larger percentage of intrastate business naturally falls to the road than does interstate For instance, in the case of outside agencies, they are maintained outside of the building which is attached to the track, you might say, and as a general thing, the roads have a large force even at points their lines don't reach; the roads maintain in all the eastern cities, large forces to obtain this traffic for them, and for that reason, I have stated that these expenses when divided upon the

revenue basis, are unduly burdening the intrastate expense. Q. Take the next item, four, transportation, the first item there is the station expenses; I will ask you what you think of the division

that has been made there of the station expenses.

A. The station expenses as divided here, have been divided on the basis of two and one,-two to one, against the interstate; that is, the intrastate has been taken as two, and the interstate as one, re-percented and upon that basis, the division of station expense has been made. Where I have not had any other factor to go on, I

3550 have used this basis always, in dividing this expense, 3551

Q. That uses the ton as a factor, I believe?

A. Yes, sir.

Q. Is that a proper factor there?

A. Yes, sir, that would be the proper factor for station expenses. I have at times gone into further detail upon this point, in order to determine how much of this expense was due to interstate and intrastate.

In one case, I went over the freight records, consisting of agents' abstracts principally, supplemented where necessary by the waybills, and made a calculation as to how many times—

Mr. Moore: I object to the statement of the results of an investigation on another line of railroad; I understand Mr. Hillman is going to state now the results of an investigation upon another line of road.

The MASTER: I don't think it would be competent, except as a

source of general information.

Mr. MOORE: I mean the result of it, that is what I object to.

Mr. Hill: Mr. Moore put into evidence at Chicago a lot of investigations made out in Iowa, Minnesota and other places, to re-inforce the judgment of his witnesses about the case.

Mr. Moore: I was taking the testimony of operating men, to show what their views were upon their experience.

Mr. Hill: They were making tests just like this gentleman was, to find out the truth about it.

The MASTER: Just keep within the lines of your experience and knowledge, what you have found out in those investigations is a matter of experience, and do not give the results.

A. I took the handlings of the less than carload lots, and upon the result of that investigation, I divided what is called our station labor, consisting of, as far as the freight portion of it goes, the freight handlers, for, as you may know, very little of the carload lots are handled by the employees of the railroad company. There was exceptions, of course, but those exceptions are not great and can be ignored, and I took these for the absolute number of times that the labor would have to handle this freight. I made the division on that basis for two of these roads, and from the result of those investigations, I would not—

Mr. Moore: That is what I object to.

A. I am not going to tell the results, I don't know whether it is competent or not, that is what I am going to see; from the results of those investigations, I would not he situate to indorse

3552 the method which has been followed here in the division of station expenses, with the statement which I have already made, that where I do not have that detail, I have followed

that method myself in dividing the station expenses.

Q. That next item is yard and terminal expenses, divided between local and through business on the basis of the number of cars handled at terminals; are you familiar with that method and that factor of reaching that item of expense?

A. Yes, sir. I have not always gone into that detail. I am doing it now in one case that I have on hand, but I have not always gone into that detail where I have not had that factor; I have divided that, as I stated before, upon the ton basis.

Q. Which is the nearest factor, in your judgment?

A. The handling of cars at terminal stations, switching at stations, is undoubtedly the factor to be taken into consideration.

Q. When you cannot get that, you take the next best, as you

have in some instances?

A. It really is not necessary to go into that much detail.

Q. The next item here is fuel and expenses; that matter was handled in this way, on the Iron Mountain; they took the fuel that was ascertained by a test made by the Cotton Belt Railroad, and the gentleman who had been general manager of both railroads,

3553 said that the fuel conditions should be practically the same upon those, and they have applied the factors obtained in the Cotton Belt test to the Iron Mountain in the absence of any data from which they could get the actual fuel consumption. What is your opinion of the proper way to divide that expense, or the way it has been divided?

A. The way that it has been divided seems to me to be proper. Of course, it depends to a certain extent, upon whether the conditions between the two roads were on an equality; if there is testimony to that effect on file, it should receive its confirmation, as far

as that test only goes to confirm it.

Q. If you were confronted with a statement made by a witness introduced by the carriers, who had been general manager of both of the railroads in controversy, that that was a fact, would you feel justified in using his figures?

Question objection to and not pressed.

A. I would say further, that in the absence of the testimony of the character of which I have spoken, I have taken that consumption of fuel on the straight engine mile basis, as between the local and the through trains; I mean by that, when I have not that percentage available, I have taken it on the straight engine mile basis.

Q. The next item is engine house expenses, road; which are divided between local and through, on the basis of engine miles of each class of service, during a given month, where the test was made; there was an allowance, however, made of 12% more engine house service was available and the control of the co

of 12% more engine house service per engine mile on the local than the through, owing to the difference in the mileage; what would

you say of that factor of dividing that item of expense?

A. Engine house expenses depend upon the engines using the facilities; necessarily, if the run, or presumably if the run of the local train was 12% shorter than the other, they would use that facility so much more than the other, and therefore, I would say that in the absence of absolute accounting of the engines using the facility that the factor which has been used here is correct.

Q. Loss and damage, that is an ascertainable quantity, and was

ascertained in this case, so there is no matter for discussion there; you recognize that as an ascertainable quantity?

A. Yes, sir, to use the phrase coined by Mr. Plant, comptroller of the Southern Railway, that is a question that is capable of allocation.

Q. That was allocated here. I want to call your attention to the exhibit, Division 7, this work has been done on a division between local and through expenses, and then the ton mile state and interstate taken care of on each respective train, and the division between state and interstate arrived at on that basis.

I will ask you your opinion of that, as to whether that is a sound method of ascertaining the state and interstate result, after 3555 working it out through the local and through train?

A. That is the method which is in vogue upon all roads, in determining this expense, and going upon the subdivision which the accountants for the state have done, I would say that if there is no discrimination in the handling of traffic upon the part of the railroad companies; that is the correct method; I mean by discrimination, it is a possible thing for all state business to be regulated as far as possible, to a local train, although it might be entitled by its length of haul, extending over an entire operating division, to a through movement, or the converse might be true, that interstate freight might be regulated to a local train; in other words, they might fill up their local trains with either inter or intra exclusively, to fill up the train to its capacity exclusively, when really it should be upon an apportioned basis, but that would require, to my mind, too much handling in examination, and I would therefore say, that I consider this method which is taken here, which shows the absolute facts which existed, and the method that it was handled, as sufficiently accurate for the determination of that matter.

Q. I will state as a matter of information, that witnesses both for the carriers and the State in this case, have testified that 3556 state and interstate freight has been carried indiscriminately, and handled indiscriminately, upon cars and upon trains; that is an established fact in this record, of the traffic conditions in Arkansas; there is no such thing as separation between state and interstate cars or state and interstate trains.

In view of that established fact then, what would you say of this

division?

A. Considering that a fact, the method employed in Exhibit 7 is correct.

Q. There has been a great deal of testimony in this case, directed to an attack upon the ton mile basis of division of expense between state and interstate; I presume you are familiar with what is commonly called the ton mile or flat ton mile division of expenses between state and interstate, and I will ask if this division here, between local and through trains to reach the state and interstate, is subject to the objections that you are doubless familiar with, that have been urged against the flat ton mile as a division between state and interstate?

A. No, sir, I should say not, for the reason, that in this number

7, on these train expenses, these train expenses are incurred in making the train mile, and while the train mile is not a proper factor for a large part of the expenses, it certainly is the factor for these expenses, which consist of the train movement.

3557 Q. It is the proper factor to use at this particular division; the other factors have been taken care of before they reach

this point?

A. Yes, sir, we have not used this ton mile in dividing all our expenses; the criticism on the ton mile basis is where we use that as the basis for all expenses, not for the expenses to which the ton mile properly applies; you could criticize the general use of a factor, and yet its use in a special case would be perfectly proper, while its use in a general case would not be.

Q. What do you say as to the general use of the revenue factor

all the way through?

A. I have expressed my opinion on that subject.

Q. I wish you would turn to the passenger side of this exhibit, and without going into detail, just express generally what you think

is the proper basis of dividing passenger expenses?

A. As a general proposition, all items on the passenger list—those that pertain directly to the train movement, are divisible upon the passenger mile; those which pertain to the station expenses,—I mean by that, the handling of those passengers before they get on the train, are divisible upon a passenger basis and not a passenger mile basis.

In making that passenger basis, we must also recognize the fact that there are two terminals on an intra passenger, and one

3558 terminal to the inter passengers.

We also should recognize the fact, that as a general proposition, an inter passenger requires more attention for his one service than does the intra for his one service.

I have therefore taken, almost invariably, the position taken here, as regards station expenses, that they accrued on intra passengers in passenger miles, intra passengers, t-o, and inter passengers at one.

Q. You used the passenger as a unit where you used the ton as

a unit before?

A. Yes, sir. There is a slight exception to this, but the amount is so small that it can be considered a neglible quantity; that is there is a switching movement of passenger trains; that switching is for the train itself, not for the passenger, and when you have switched the train at a terminal, you have undergone an expense which prepares that train for its run over the entire mileage made by the train, and as such, that expense of switching should be divided upon the passenger mile basis, as preparing the train for that, there is a slight difference between that and the ton handling; if you will think of the inertness of the ton as against the activity

of the passenger, you will see the reason why we leave the freight on the ton mile basis, and extend the passenger mile basis to cover the switching in the passenger business.

Q. I call your attention here to the division of the train between the coach, Pullman, mail, express and baggage, without going into

detail, you are familiar with the way that has been divided in this case?

A. Yes, sir.

Q. I will ask your opinion of that?

A. That is the refinement of the case that I have never gone into, but it is a basis which is correct, provided the information upon which the space in the cars which are used for joint mail, express and baggage is correct, the basis taken here is a correct basis for setting up those expenses.

Q. As I recall the testimony, information was obtained from the contracts with the express company and the contracts with the Government for the mail, as to the space allotted to each; of course, you know nothing of that, and have to assume that is correct in-

formation.

A. I want to add here, that I have never in my handling of these questions, set up mail and express cost. I have proceeded on a different method which gives, however, practically the same result, if you will think of it for a moment; and that is, I have taken the

earnings which accrued from these various operations of the
3560 passenger department, and allowed the through expenses to
remain in with the other passenger expenses, but apportioned
the earnings upon the basis of the passenger expenses already determined. That amounts to the same thing as we have here.

Q. As a principle of accounting, what would you say of the divi-

sion that has been worked out here?

A. As a principle of accounting, the divisions that have been worked out here, have been worked out on a basis that is fair and reasonable.

Cross-examination.

By Mr. Moore:

Q. What do you mean by determining these questions on principles of accounting?

A. That would mean the correctness of applying the factors of

use which we have added to the expenses.

Q. Isn't that a matter though, that depends in the first instance, upon the manner in which the business is conducted, and the uses that is made of the various instruments that are engaged in the transportation of freight as well as passengers, rather than upon the method of accounting, isn't that the underlying thing?

A. Certainly, and only as accounting is based upon those under-

lying principles, is it correct as an accounting proposition.

Q. In other words, an accountant, in order that the 3561 methods he adopts may reflect the result correctly, say in this case, the divisions to be made, he must first get the business on that basis, and that basis must be the actual operations of various accounts involved in the handling of traffic, and when I say that, I am including instruments of transportation, cars, and equipment, that is correct, isn't it?

A. Yes, sir, he must apply to his basis of accounting, the factors

of use; otherwise, it is not a correct proposition.

Q. In other words, the system and method of accounting is simply the application of the facts, so to speak, which characterize the service, and the different varieties of service, in the division of the expenses or the earnings, as the case may be?

A. Yes, sir, it is the proper recording of those factors which you

have mentioned.

3562

Q. What is included under the division of passenger expenses in the exhibits to which your attention has been called, what is included under the third item there, traffic expenses, what character of expenses is included in that?

A. The expense of the superintendence of traffic, the outside agencies, the traffic associations, and the necessary stationery, print-

ing and so on, that go with those.

Q. Now, what connection has that service, and what benefit accrues from that service to the mails carried on the trains?

A. The traffic manager, in all probability, would be called into consultation as to the making of those contracts with the Government, and as to the usual triennial checking of the amount of mail carried over the road; he would have something to do with that.

Q. Are not the terms of those contracts prescribed by the Government, and are not modifications in them governed by certain rules

prescribed by the Government?

A. Yes, sir, but nevertheless, he would have something to do with that; at each checking and at each contract letting, they are the subject of more or less correspondence and controversy between railroad officials and the Government, or sometimes they are the subject of competition between different roads, to obtain the contract from the Government, and there the traffic manager would have something to do with it.

Q. The great bulk of that traffic expense is advertising and travelling and getting up matters of that kind, isn't it? I say, the great bulk of traffic expense, is in travelling, advertising, and matters

of that sort, and in maintaining agencies in other states?

A. Yes, sir, in obtaining traffic.

Q. The consultations which you say the traffic officials may be called into, would be a very small proportion of the expense,

wouldn't it?

3563 A. Yes, sir, it probably would not require as extensive an outlay of time on the part of the traffic manager as the other business would; either in proportion to the return which he would get on it, and it would have very little to do-about the same to do, with the clerical effort of his force.

Q. When they have a regular traffic organization on a railroad, aren't those consultations and correspondence handled rather with the operating officials, the manager of the road and the executive

officials?

A. It is very hard to draw the line where the general manager and the traffic manager's duties end and commence; the traffic manager would not be justified in making a contract with the Government of mail, or with an express company for express, without consultation with his general manager; there is no question about that.

On the other hand, the general manager would not be justified in taking the matter in his own hands, without consultation of his traffic men.

Mr. Hill: I think your question assumes a fact that is not in evidence here: I understand their mail department is under general expenses.

Mr. MOORE:

Q. Isn't that service, making contracts, and the matters you mentioned in your last answer, in charge of the mail agent who represents the railroad company in making all contracts with 3564 the Government?

A. That is possible, that might be done.

Q. Isn't that expense carried in another branch of the service?

A. I should think not.

Q. Is that included in traffic expenses?

A. Yes, sir.
Q. You base your impression you have given here, upon the assumption that that is charged in the traffic expenses, and not in other accounts?

A. I believe, since you speak of it, the superintendent of mail is

under the general officers.

Q. That being the case, what do you think about the propriety of charging part of that to mail?

A. How is that?

Q. Charging part of that expense to mail, charging 11.63% of

the traffic expense to mail?

A. I don't see any particular objection to it, excepting that as I stated, in that amount there might be some difference in the amount of work which that man did under the mail contracts.

Q. You say there might be, but assuming now, and taking it from the standpoint of the orderly methodical conduct of the business of a railroad, and the division of the duties among the different departments and different officials, what would you say about it?

3565 A. In that matter, the division of those expenses, it is possible that there may be too much percentage charged in there. in that special case, to the mail department, of the traffic expense, but if it leaves the traffic expense here, it will go under the item on the next page of supervision in general, upon which the percentage is 10.95 as against 11.63 here, a difference of seven tenths of one per cent, in whatever amount you would transfer from one to the other; I should think it would be a matter that would be inappreciable and negligible, as there are really some duties in connection with the mail that are correctly charged to the traffic department.

Q. Assuming that all matters in connection with the mail is under a separate department, the mail department, that the expense of that department is charged to general expense, would you say it was proper under those conditions, to charge any part of the traffic ex-

pense to the mail?

A. No, sir, not under that supposition.

Q. What service is rendered by the agents of the Company in the traffic department to the superintendence of the business?

A. That comes under the traffic official to a greater extent than

does the mail.

Q. What service is rendered by traffic officials in connection with the handling of express matter on the railroad, assuming that the expense business of the railroad is conducted by an en-3566 tirely different and distinct corporation and is not under the

control and is not conducted by the railroad company?

A. There are questions constantly arising between the express company and railroad company, which are referred to the traffic officer for adjustment. As those matters come up, they are taken and decided and adjusted by him.

Q. What do you mean by the traffic officer.

A. I mean the man, say like J. M. Haniford, 4th Vice-President of the Northern Pacific.

Q. Is his salary and expenses included in this item of traffic ex-

A. A certain proportion would be.

Q. You assume that to be the case, but assume that the officers' salary is charged to general expenses.

A. Then it should be charged to general expenses.

Q. And should not in that case be charged to traffic expense? A. Only if the supervision of that matter is removed entirely from

the traffic department, and removed to the general department, then

there should be no charge here.

Q. Suppose your assumption made a moment ago, that the traffic manager would have occasion to adjust some difficulty between the express company and railroad company, suppose that traffic 3567 manager is charged against general expenses, should that charge then go into traffic expenses?

A. Not if the officials should have absolute charge of that matter; if it is all charged under general expense, there is no question that the traffic expense should not be put in here at all; there is no ques-

tion of that.

Q. That being a fact, the assumption you made a moment ago, the basis of what I have stated, that that business is conducted, but the expense that there may be goes under the head of general expenses, should not this expense be divided in the same manner that you did the direct traffic expenses on the gross earnings of the business, as you stated awhile ago? together with the passenger business in this department of service?

A. Yes, sir.

Q. Now, there is 19.33 per cent of the traffic expense charged on this exhibit to mail and express; if that view is correct, that would be an improper charge to that account, would it not?

A. That would be an improper charge to mail and express, and what has been charged there would necessarily be divided between

interstate and intrastate.

Q. In the same way that you divided the freight?

A. In the same way as it is divided in the first two lines of that station which you are quoting.

Q. What service accrues to mail, which would justify the 3568 charge made on this Exhibit of 12.82% of supervision and

general expenses to mail?

A. The repairs of the mail cars, the repairs of the locomotives, necessitated by the proportionate weight of the mail cars on the train, would necessarily be included in this supervision in general, and reflected in that, the same as they are in locomotive car repairs and train car repairs.

Q. What other expenses are included in that account, supervision

in general, if any?

A. Superintendents, shop tools and machinery, stationery, printing, injuries to persons, and what we used to call other general shop expenses, and other maintenance of equipment expenses would be included in that supervision in general.

Q. Take the Pullman cars, what service which should be charged

to supervision in general, is rendered to Pullman cars?

A. That is the supervision rendered necessary by the superintendence of the maintenance of the motive power, the engines, on which repairs were necessitated by the pulling of the proportionate weight of the Pullmans in the train.

Q. Do you feel that 13.88% of the total amount charged would

be a proper charge.

A. Yes, sir. If you will note on division A of that same #2, the prior page, page 1, you will note that the \$35,000. is the 3569 Pullman mileage proportion of the expense to engines.

Pullman car repairs have been charged by the accountants on this basis; it is simply a question of figuring the percentages from the figures here.

Afternoon Session.

Q. You were talking about the division of general expenses under the head of maintenance of way and structures when we adjourned at noon; as I understand the basis of the division of this expense is the direct charge contained under the head of maintenance of equipment, under the head of locomotives, that is correct, isn't it?

A. No, sir, I understand your question to say, general account of

maintenance of way and structures, did you not?

Q. No, sir, I was talking about maintenance of way and equipment, this item of supervision in general; it states it is on the basis of the direct charges as apportioned, and that is under A locomotives, isn't it? I think you explained that to be the case this morning.

A. It includes all the accounts in that division, maintenance of

locomotives, passenger train cars and everything else.

Q. Going back to the basic matters, I will ask you if you think it is proper that a charge of this character of expense 3570should be made to the Pullman, when the railroad does not

in fact maintain the Pullman cars?

A. This is supervision in general; this is for the reason that that Pullman expense, if you notice it is marked there in direct charges, that is the expense of the repairs to the engines, the motive power, which is caused by the strain of pulling the Pullmans,

Q. Does it cost as much per car per mile to maintain Pullmans

as it does mail, express or passenger cars?

Q. If that is so, is it proper to divide that on that basis, because it is divided on the basis of the car mileage arranged there?

A. Yes, sir, you will note there are two divisions, the first is loco-

motives divided in Pullmans, coach, mail and express.

Q. I am speaking of cost of maintenance of locomotives, if it doesn't cost as much to maintain the Pullman, and if the Pullman doesn't run in a great many trains, and if the express cars do not run in a good many trains, and the mail cars do not run in a good many trains, if it is proper to charge them up on an equality,-I mean in the locomotive expense, on the basis of the car mile.

A. Yes, sir, because locomotive expense here, is divided, if you will note, upon the basis of the mileage made by the cars, and, of course, that would include the differences in the mileage made by the respective equipment, coaches, Pullmans, mail and ex-

When I said that it did not cost as much to maintain 3571 a Pullman as the other equipment, I referred to the fact that the Pullman charge only accrues in locomotive repairs, and does not

accrue upon the passenger train cars.

Q. After you have ascertained the percentage of the maintenance of locomotives that is chargeable to Pullmans on a car mile basis, assuming for the time that that is correct, then you divide the expense of supervision in general on the basis of the charge on the locomotives per locomotive, these direct charges, locomotives and passenger train cars?

A. Yes, sir.
Q. The Pullman is not included in passenger train cars, there-

fore, it is on the basis of locomotive expenses, isn't it?

A. It isn't on the basis of locomotive expenses, but it is on a basis which includes both maintenance of the locomotives and maintenance of the train cars, and as it only enters into one of those expenses, it is upon the expense which accrued under locomotives only.

Q. That is what I meant to call your attention to; I will repeat the question I asked you awhile ago; the railroad company does not maintain that class of cars, why should you enter a charge here against the Pullman car, under the head of supervision in general, why should you base a charge there against that class of cars?

A. We base a charge against supervision on account of that class

of ears, for this reason-

Q. Wait a minute, let me explain what I want to call your attention to. I understand that you assume that the expense of maintenance of locomotives is divided between the different classes of cars under sub-division "A". I understand that, and you state that is properly done because the damage is inflicted in part by the Pullman to the extent that car is used on the track. What I call your attention to is this; assuming, that is correct and that that is a proper direct charge, what I want to know is, is it proper that you should make the fact that it is subject to that direct charge under subdivision "A", on account of the locomotive maintenance, is that fact any reason why you should charge an equal amount, that is an amount of expense proportionate to the mileage of the Pullman car, under the head of supervision in general, when there is practically no service to amount to anything, rendered under that heading to a Pullman car?

A. If you will notice, we do not do that; if you will take "A" under this division, maintenance of equipment, you will notice that the amount charged under that percentage to coaches is \$94,500.26; if you will now turn right over to "B", the passenger train cars, you will see that the amount charged there to coaches on the percentage, and Pullman is omitted from that \$62,711.39; the same is true of the \$94,500.26, and that and the \$62,711.39 make up the amount of \$157,211.65 shown in the first line under the heading, direct

charges, in division "C", supervision and general. will then refer again to maintenance of equipment, division "A" locomotives, you will see that the Pullman is there charged for its proportion of the repairs of the locomotive, with \$35,206.63. It is charged with nothing in Division "B"; the total with which it is charged under direct charges in "C" line 2, is \$35,-206.63. If you will then, in the same way, refer to the mail cars, you will see that under Division "A", they are charged with \$19,559.24; in division "B" they are charged with \$12,969.06; in division "C" they are charged with the sum of these two, \$32,528.30. The same way with express cars, under division "A", \$17,195.48. Under Division "B", \$11,418.70; under Division "C", the sum of the above, \$28,614.18, these accounts, coach, Pullman, mail and express coaches have two items charged against them in Division "B" Pullman having but one item charged against it in Division "B"; mail having two items charged in Division "B", and express charged it in Division "B", they are then added together, and the percentage which these charges show to coach, Pullman, mail and express are percented, and the expense is charged for the supervision and general expenses on the basis of those percentages, which is correct.

Q. I understand all of that perfectly, and I know that you have added the expenses of "A" and "B" together, so far as the coaches are concerned, and you have charged the per cent, the percent of Pullman expenses under Sub-division "A" was 21.15 of the total,

and the percentage under Division "C" arrived at in the way
3574 you have described is 13.88; an explanation you have made
accounts for that difference in percentage; I understand that;
assuming that to be true. I repeat the question in view of the fact

assuming that to be true, I repeat the question, in view of the fact that there is practically no service of the kind that is included in the expenses, supervision in general, applicable to Pullman cars, is it proper to charge that percentage of the total maintenance as shown by Sub-divisions "A" and "B" to Pullman cars?

A. Yes, sir.

Q. Explain to me what service it is that justifies that?

A. As I have said, the superintendence, and speaking of the superintendence, I mean the supervision of these general accounts, they find it necessary that they look over and direct all of the operations and the conduct of this block of accounts, maintenance of equipment. In this block of accounts, we find that there is a percentage of those repairs which they supervise, which is due to the fact that Pullman cars are pulled upon the train; it applies only to the locomotives, the Pullman Company taking care of car repairs save certain little odds and ends. Therefore, in the supervision of his locomotives, this superintendence is necessarily devoted to these locomotives and a certain proportion of his time, of which 56% accrued upon the coach time, because of the coaches pulled by locomotives; 21.15%

upon Pullmans, because the Pullmans were pulled by the 3575 locomotives to that extent, 11.75% on the mail, because the

mail cars and cars carrying mail were pulled upon that percentage, and 10/23 to the express, because the express cars were pulled upon that basis. Therefore, of the time that he spent in supervising the locomotive business, 21.15% was chargeable to the Pullman service.

Q. You are overlooking the fact when you go to apply that to supervision in general expense, that there are a great many other kinds of service in the auditing department rendered to the coaches and even to mail and express, that are not to the Pullman, are

you not?

A. In what department is that you say?

Q. Expense under the head of supervision in general; the only expense I could conceive of that would accrue against the Pullman car is that which would occur in the auditor's office, excluding locomotive supplies and expenses; what is the character of service ren-

dered to the Pullman car under sub-division "C"?

A. It is the percentage of the locomotives. I think you mistake in that matter, that this supervision and general is only the supervision and general items under the head of the block of maintenance of equipment; it is not general expense which accrues in general expenses and the expense of the auditor's office; that accrues at the end of the accounts, further on.

Q. I will ask you what the general expense under sub-division 5

to Exhibit M represents?

A. Under maintenance of way and structures, you will note that the Pullman——

Q. I asked you under sub-division 5 of Exhibit M, general

expenses.

A. That is the proportion of the general expenses which have been incurred on account of the pulling of Pullman cars; if you will note under #1, on page 1, that there is \$106,021.02 incurred on account of Pullmans. Under #2, maintenance of equipment, division "A"____

Q. That is direct expense that is made the basis of it?

A. Yes, sir.

Q. You do not understand my question, I understand that; I asked you, what does general expense under that heading include; what is the meaning of that as used there?

A. As used in division 5?

Q. Yes, sir.

A. The expense of the general officers and their clerks, and what they call other general expenses, which are included in that block of accounts.

Q. On the basis of direct charges to other classes of expenses, 18% of general expense is charged on this sheet to Pullman cars, what, in your opinion, will justify that charge of 18% to Pullman cars?

A. It is justified by the fact that in charging directly to the expense which had preceded this block of accounts which is headed general expenses, that there have been \$273,188.56 of expenses which has been shown to have been charged to this expense on

account of the Pullman cars being hauled over the line. Q. That is the way you have ascertained the ratio is it

not.—what the percent is?

A. Yes, sir.

Q. What justification is there for charging any part of the item of general expenses there to the Pullman cars?

A. For the reason that the expenses have been incurred by the

operation of the Pullman cars on the line.

Q. The particular character of services represented by this item is services in the general office, isn't it?

A. Yes, sir. Q. What have the general offices of a railroad to do with the Pullman car?

A. They have to do, not with the Pullman car perhaps, but with the expenses which are caused by the Pullman car, as I quoted in maintenance of way and structures on page 1, there was \$106,021.02 of the expense incurred on account of the hauling of Pullman cars over the line. Therefore, to that extent, whatever supervision was given by the officers in block 5, general expenses for maintenance of equipment, 21.15% of that was charged to Pullman service in the same way, under maintenance of equipment-

Q. I think that illustrates what you mean. The question I am trying to ascertain is, if the services rendered under these various headings, and part of it which pertains to Pullman cars, in

3578 view of the fact that the Pullman car is charged with 21.15% of the maintenance of way and structures, it pays there for its charge of the injury that may be allotted to maintenance of way and structures; the same is true of maintenance of equipment; it is charged with 21.15% of the expense of locomotives, and so on; that illustrates it without tracing it through; it pays its own way along through; it is not that expense you are talking about now, we are talking about expense of the general offices. Now, there is no expense of the general offices incident to Pullman cars except may be the time of one clerk to keep the accounts in the auditor's office, and that would be a very small portion of his time; assuming that fact, is it justifiable to charge 18% of the general expense to that account?

A. Yes, sir, for the reason, that when a Pullman has paid its share or there has been a charge to the Pullman of its share of the maintenance of equipment expenses and maintenance of way and structures, conducting transportation and so on, it has not then paid all the expense which has accrued by reason of its use; there is still the general expense, which is coming on another account, of which it has not paid its proportion, and therefore, as these charges were made against it, it was simply paying under block 5 its proportion of general expenses which were incurred by reason of its use in prior accounts.

Q. If I understand correctly, you stated in your examina-3579 tion in chief, speaking of the apportionment of expenses of switching as against the movement of through trains, you said that expense was in regard rather to the trains and not the passengers; please explain that to me; my recollection is a little indistinct as to that.

A. I meant by that, that when a passenger train is made up at a terminal station, it is switched at that time. It has on it just so many passengers starting out from a terminal, but the switching which it gets at the terminal lasts during its entire run, or to the next terminal, the end of its run, therefore, that expense which prepared for every passenger that gets on, should be on the basis of passenger miles, and not on the basis of passengers who happened to be on the train at the terminal when it is switched, and therefore, is an expense which is a train expense and not a terminal expense, although it is incurred at the terminal.

Q. What is the difference between that character of switching service to a passenger train and the switching of freight cars?

A. For the reason that the freight train car switching, lasts, you can say, for the life of the car only; the freight has to be pu; out; it has to be absolutely handled itself; the passenger handles himself after his train is once fixed for him, and in that respect, the ton

basis, the number of tons handled, would be the factor for the switching charges, and not the ton mile basis; if the passenger were inert, and compelled to be handled as a freight

car is,-that is, if it was necessary to switch your passengers when you take them off and on, it would then be necessary to take them on the passenger basis and not the passenger mile basis.

Q. Doesn't the handling of the freight though, doesn't that enter

into the station service rather than the switching service?

A. The handlings, yes, sir, enter into the station service; I am speaking simply of the switching in that regard, and not the station service; we handle our passengers upon the basis-we handle that expense I mean-upon the basis of passengers and not in passenger miles.

Q. That is terminal expense you speak of? A. Yes, sir, as when a ticket is sold, it is sold without reference to the fact whether it is a five mile run or a fifty mile run.

Q. You divide the terminal expense with regard to freight the same way?

A. The station terminal expense, yes, sir.

Q. If you adopted the same method in regard to station expenses, and in regard to passenger train and station expenses which are analogous, why not adopt the same handling or same method in regard to switching service which is similar; you do not handle and 3581 do not render station service, switching service, to the contents of a freight car any more than you do to the contents of a passenger car; it is switching service I am talking about; you do not handle the contents in a freight car any more than you do the passengers in a passenger car?

A. Yes, sir, for the reason that as soon as it is necessary for that ton of freight to leave the train, that carloac of freight, it doesn't handle itself as the passenger does, it has to be handled by the appli-

ances of the road.

Q. Isn't that charge under another heading than switching ex-

penses, the handling of the carload or car?

A. No, it is under the switching expenses; it is switching expenses of which I am speaking now, that when you get a freight car out, you have got to handle it; when you get the freight out, you have got to handle it with the road's appliances, making it rather a ton matter than a ton mile matter, while the passenger, as far as switching goes, his train is ready for him and he handles himself. I would be very much pleased to have it, for this contention, on this ton mile basis, as it would accrue a little to our advantage.

Q. Taking up, under Exhibit "M," under sub-division "B" of maintenance of equipment, the state's accountants have divided the expense of passenger train cars as between coaches, mail cars

3582 and express cars, on the car mile basis; I want to call your attention to the difference of the use and the service on this; the coaches are loaded with passengers, the mail and express cars are loaded and used in a different way, do you think that it is proper to divide that expense as between those cars, in view of that to which I call your attention, on a car mile basis, thereby attributing the same character and amount of use in every way, to mail and express cars,

that you do the coach?

A. That percentage existing there, should be taken upon the allocations of the repairs of the different classes of cars used in passenger service; if the amount of annual repairs per mail car is only 75% of the annual repair to a passenger coach, the mileage of the mail car should be reduced to that percentage of coach miles; that is a matter that is subject to the creation of the absolute allocations of repairs

to the different classes of cars.

Q. Has that plan been followed in the division of that class of expense in the exhibit before you?

A. No, sir, that has not been done; in there, there is an assumption of the parity of annual repairs to both coach, mail and express.

Q. Going to station passenger expenses, which you will find under sub-division "A," under transportation expenses?

A. Yes, sir.

3583 Q. The expense is divided in the formula filed by the state's accountants, between intrastate and interstate business, on the basis of the number of passengers of each class handled, assuming that each passenger intrastate makes two uses of terminals, and an interstate passenger makes use of one terminal; that leaves out of the question, doesn't it, the fact that trans-state passengers

who should happen to be on these trains, are not handled at all at terminals in that state?

A. They may or may not be, depending upon the method.

Q. Assuming that they are not, then would that be a proper

division of the expense?

A. No, sir, it would not, considered directly in that way. As I stated before, I think I stated it in my direct testimony, I have adopted this method of division myself, of station expenses, intra two and inter one, ignoring what we might call the bridge work of interstate passengers, considering that it was fully off-set by the extra amount of labor entailed when an interstate passenger did receive attention at a terminal.

Q. What additional attention do you have in mind when you speak of additional attention to interstate passengers at terminals.

A. The bulk of the intrastate passengers are served with tickets which are called by various names, general, simplex tickets; they are readily handled, require little time, the rates are well

in the agent's head, and known; an interstate passenger is more, to a greater extent, served with a coupon ticket, in which it is necessary to write in the name or to punch the name of the station from and to; it has to be stamped and the limit punched on the ticket. This requires considerable time; the fact is, that with the card tickets or simplex tickets, probably ten passengers could be served and gotten out of the way, while one coupon ticket passenger is served.

Q. Isn't that rather an extreme assumption?

A. There is some assumption to that; I will admit that I am quoting the extreme of the cases, because there are certain tickets which are interstate, which are handled on the line of the road, which are just as familiar to the agent and just as easily handled as the other; on the other hand, there are some interline intra-state passengers which require just as much attention as an interstate coupon ticket passenger, but the percentage of coupon tickets interstate is very much larger than the per cent of coupon tickets intrastate, and for that reason, I have assumed that the bridge work would be thoroughly off-set and more than off-set, in my opinion, by this extra percentage on coupon tickets.

Q. You assume then that the extra service you speak of, will be equivalent to the terminal service of the interstate

passenger, in the case of the trans-state passenger?

A. Yes, sir.

Q. I believe you stated this morning, you used tons as a basis of dividing yard expenses between state and interstate; would it not be better to use that unit there, than to make the division between local and through trains on the car mile basis, and then divide between ste and interstate on the ton mile basis, wouldn't it be a more d rect way of arriving at the result?

A. I would not like to say that it would be the better way of doing it; it is a method I have pursued heretofore myself, in

handling those expenses.

Q. I take it you pursued the method you thought the best?

A. I pursued it because my attention had not been called to this method of handling; I think I stated when I went over it, that it was a new one to me, that it received attention from me as to how

it bears out, and it looks very fair on the face of it.

Q. Assuming if your plan is the proper plan, wouldn't it be better to divide the car expenses, I mean the expenses on the basis of the cars, between state and interstate, rather than to divide it between local and through trains, and then on the basis of ton miles between state and interstate, as far as it could be done?

3586 A. I think that the absolute car basis of the handling of the cars would be the best, and if my recollection serves me, that is the way the accountants for the state have taken it up.

Q. If you will turn to page 4 of Exhibit K, you will find that the yard and terminal expense is divided between local and through business on the basis of the number of cars handled at terminals, that assumes, as I understand it, a division between local and through trains, that is the way it is divided between local and through trains; after that is done, then this expense is divided between state and interstate business on the ton mile basis. Now, what I want to ask you is, what is the use—is there any good reason for dividing that expense between state and interstate business upon a ton mile basis, where it is practicable, in so far as it is practical to divide it on the basis of the cars in which the freight is handled?

A. Offhand, without, as I have stated, going into this matter further, as I wish to do, I should say that I would prefer to accrue the switching cost upon the cars at the terminal, and after that amount of money had been determined, I would then, of course, distribute it by the ton mile basis to state and interstate, as that would be the factor, or you might say, not the factor, but the term

in which I would express costs. I would not base the costs on the ton mile, but after I had the cost of this ton and all other expenses, I would then express that in a cost per ton

mile.

Q. You would make your division on the car basis?

A. Yes, sir, I think I would, as I see it now, without going further and comparing it further, I think I should fasten it on the car or

ton

Q. The state's accountants, in the exhibits in this case, have divided a large part of the train expenses—of the expenses. I mean of trains—on the car mile basis, and in doing that, the car is a car without regard to its contents, whether it is empty or loaded; if it is loaded, without regard to the weight of the load. Now, what is your view as to the proper method of dividing that character of expense between freight and passenger cars?

A. That is, the expense of switching?

Q. Yes, the maintenance of way and structures and equipment, all that sort of thing, I am speaking now of these large divisions, maintenance of way and structures, maintenance of equipment, and that character of expense which is divided on a car mile basis as between local and through trains; what in your judgment, would be

the better way of dividing that between passenger and freight-I speak of the car itself?

A. The car mile or the car basis, and terminal car basis, as set up here, and dividing it by the ton mile would not enter into the divis-

ion between freight and passenger.

3588 Q. You do not understand me; I say, after the freight and passenger expense has been divided, then the expense we will say of freight traffic is divided first between local and through trains and that division is made, or the larger divisions made by the basis of car mileage, made by each train; what I want to ask you is, why should not that unit be used as a basis of dividing between passenger and freight, as well as between the two kinds of freight trains?

A. The car miles?

Q. Yes?

A. I would not use the car mileage in the division between freight and passenger, I would use train weights for maintenance of way and structures, the maintenance of equipment is allocated, passenger equipment and freight equipment.

Q. The expense between passenger and freight in these exhibits

filed by the state, is divided on the train mile, isn't it?

A. I don't know, sir.

Q. That is the train mile made by each class of train?

A. That is whatever the loads had done, I don't follow that. Q. Which would you regard as the better method of division?
A. Which two, do you mean?

A. The train mileage or car mileage?

A. Neither of them.

Q. Give me your views upon that subject?

A. My views on that subject would be that the expense 3589 of maintenance of way and structures should be divided upon the basis of the train weights in lieu of train mileage.

Q. Explain to me what you mean by train weights?

A. I mean that a passenger train will weigh approximately 250 tons, and a freight train will weigh approximately 900 tons, engine and tender included. The division should be made upon a gross ton mile basis.

Q. You would adopt that instead of the train mile basis?

A. Yes, sir.

Q. When you say trains, you speak of the weight without regard

to the contents, do you?

A. No, sir, I mean the weight of the engine and the tender, and the weight of each car, what you call light weight of each car, that is the weight of the car without any load on it, and to that, I add the number of tons which are loaded on those cars, so it would be the weight of the motive power, the weight of the rolling stock and the weight of the live load and also the weight of the caboose.

Q. That is freight?

A. Yes, sir.

Q. On the passenger, you adopt the same method?

A. Yes, sir, the weight of the engine and tender, the weight of

the equipment, the rolling stock, the average passenger miles, taken at the basis of 150 lbs. each, an allowance for 50 lbs. of baggage per person, and the express, varying according to the amount of express which the road carries, light or heavy; mail the same way, the load of your cars.

Q. What would you think of the propriety of applying that method of division as between trains and cars, local and through trains?

A. It would be practicable to do it, equally as well as it would in dividing between passenger and freight; that weight basis only concerns the wearing out of your track. I probably should state further, with regard to that, that the switching must be included in any computation which may concern the work of maintenance of way and structures; the switching work must be included; I would say that between the local and the through trains that should be—the weights should be taken into question, in so far as they applied; we can only apply that partially, owing to the fact that there is extra switching down along the line by those local trains; taking that into consideration, as has been done in this case, the weight basis could apply.

Q. Your method of division as between freight and passenger, according to the weight of the trains, applies to total expenses?

A. Only the maintenance of way and structures.

Q. The total maintenance of way and structures expense, doesn't that include switching in that division?

A. It includes the weight of the switching movement, yes

sir.
3591 Q. If it would be proper to make a division on that basis, including the switching as between freight and passenger, wouldn't it be equally proper in dividing between through and local freight trains?

A. Yes, sir.

Q. You could use the weight basis without any trouble, and so you attach some important of the weight as one of the factors in determining the relative expense; what do you think of a division that totally disregards the weight and puts an empty car on the same basis as a car that weighs 48 tons.

A. It depends on what expense you are treating.
Q. Take first, maintenance of way and structures?

A. I consider that it should be upon the basis of the weights.

Q. What effect would that have with regard to maintenance of equipment?

A. Nothing practically.

Q. You say freight cars is included in maintenance of equipment,—the repairs to freight cars?

A. Yes, sir.

Q. Is that not affected by the loads those cars carry?

A. No, sir, not to an appreciable extent; the cars are liable to injury from movement when empty as well as when loaded.

Q. Are there any other items of expenses besides maintenance of way and structures, in which you would take into account, the

weight of the contents of the cars, speaking of freight cars now?

A. No, sir, none where I would use that factor; there are 3592 certain expenses, such as the fuel, locomotives, and so on, that depends to a certain extent upon the weight which is back of the locomotive, but I would not use that weight as the factor for determining that, because there are other methods by which that can be determined.

Q. What are the other methods?

A. The direct allocation of the fuel to engine pulling the train, which is what we call individual engine performance sheets, kept on almost all roads.

Q. When did you undertake the service that you mentioned in your examination in chief, for the Louisville & Nashville Railroad,

in its litigation?

A. I first commenced an investigation of the Louisville & Nashville for the State of Kentucky, three years ago, today, I think it is, or at least three years ago this month. The service has been, however, intermittent; since I have been examining for Kentucky, I have worked for Florida, and then for Alabama, and they are under examination for Alabama again the second time-

Mr. Hill: You asked the question, Mr. Moore, when he undertook the examination for the L. & N.; I think he stated that he examined the road for the Commission of Kentucky.

Mr. Moore:

Q. I think you stated that you were employed by the 3593 Commission?

A. Yes, sir.

Mr. Hill: Your question implied that he had been employed by the Louisville & Nashville Road.

Mr. Moore: I didn't mean that.

Q. I observe that you suggest the expense as a basis of division, I want to ask you,—I mean as a unit of dividing between the two classes of business, if expense is not a fluctuating quantity itself, with the rise and fall of the cost of labor and material?

A. Yes, sir.

Q. And it is not by any means a stable factor?

A. No, sir, the expenses vary from year to year, and it is also my claim, that the use of the property varies as the expenses which

are put upon it.

Q. For instance, you take the expenses today, of operating a railroad, compared with what it was a few years ago, and it would make a great difference in the expense of conducting the same kind of business, in the same manner, would it not, growing out of the difference in the prices of material and labor?

A. Yes, sir, the expenses would be higher, and you must recall at the same time, that advancing step by step with all the expenses, the traffic has increased, they have advanced together, and 3594 that, therefore, the expenses would advance step by step, and the relation or percentage between these two expenses, would

hold stable whether the prices were low or high.

Q. In drawing a comparison between the fluctuating quantity of the earnings and of the expenses, you assume that the rates are more variable than the cost of service and expenses?

A. No, sir, the rates have nothing to do with the use of the

property.

Q. Take the revenue then, is the revenue more variable than the expenses?

A. It is not a question of variation at all, it is a question of the

proper factor to apply.

Q. The statement has been made here that one objection—I don't think you made it—that there was one objection to the revenue as a unit of division, and the objection is that the rates fluctuate, and that the revenues are therefore not stable; now, what I want to ask you is, what is the degree of variation, if any, between fluctuations in revenues and in expenses of conducting the business; do you find there is any very great difference?

A. There is a difference, of course, in the expense; that is, the expenses would rise with increases in the price of labor and material,

while you might not be able to, at the same time, increase 3595 the rates, your traffic figures, but the question of the variation is not a variation from time to time in the amounts, but the inequalities which exist in the rates for the same class of service.

3596 Q. You do not think, then, that the fluctuation in revenue produced by changes in rates, is one of the foundations of

your objection to that basis of division, do you?

A. Oh, no, sir. It is only an indicative factor on the general supposition that railroad men keep those rates on a cost basis and that they are based on a cost proposition. As soon as you depart from that cost proposition you depart from their relation to the expenses.

Q. Is it not an axiomatic truth, Mr. Hillman, that in railroads as in any other business, there is of necessity a relation preserved between the cost of producing the service rendered and the compensation that is required for rendering it? I mean, as a whole. I am

not speaking in detail.

A. As a general proposition, that is the supposition. That is the reason I say, as I said when I started my direct testimony on that point, that it is an indicative factor, and that it was used by courts in making decisions because no other factor had been presented to them. While it is an indicative factor, it is not the factor. It is better than a guess and that is all you can say for it.

Q. Do you know any business in which the value of the property used in the business is measured by the expense of producing the

output of that business?

A. Where the use of that property is joint, yes, sir. Where the use of a certain facility is distinctive to its own class of business,

the cost of that particular facility should be charged to that busi-

3597 Where the use is mixed and joint it should be upon the basis of the expense.

Q. I understand that, but the point I want to call your attention to is a little different, I think. It is this:

We are speaking now, first, as to the value of the property:

Can you cite any instance in which the expense segregated from the earnings, the revenue that is produced, is used as a factor of estimating the value of property, unless it may be under some peculiar circumstances, where you say there is some joint interest where it could come in?

A. In cost accounting the expenses of a factory would be set up upon the basis of the use of floor space, machinery, steam heat and power, according to the operations and the expenses of the operations which were conducted by that power and heat and on that floor space.

Where a machine would be segregated from its general use and be used for a particular purpose, the cost of that machine would, of course, be charged against the product which is made by that ma-

chine.

As the use of the facilities of the railroad are almost entirely joint between interstate and intrastate, the expense basis governs.

I have had cases in railroads where a facility was undertaken absolutely and solely for the purpose of an interstate matter or an intrastate matter, and there that account was segregated from the expenses and the cost of that utility charged directly to that account.

Q. That was some special condition, was it not?
A. Yes, sir. I tendered this explanation to vindicate that the same method would be pursued in setting up a cost system in the factory.

Q. You stated this morning that you had taken 108 separate accounts and divided them as between state and interstate business: or, rather, you expressed your views based upon a separation made that way, as to the manner of dividing expenses between the two classes of business:

I understood you that you had prepared a formula but you told me later that you had not. I wish to ask you if you will prepare a formula or outline indicating the method upon which you would proceed in making a division as between state and interstate traffic,

and file it as an exhibit in this case.

In saying that, I mean a formula based upon your views as you expressed them in your testimony, as to the proper method of divi-

Mr. Hill: I do not think it is right to burden this witness with formulas. You can ask him his views, but I do not think it is a reasonable request to ask him to get up a formula.

Mr. Moore: I do not ask that he include a great amount of fig-

ures, but I say an outline.



3599 The Master: It is a matter between the witness and the attorney, altogether. If he volunteers to do so it will be

all right, but I will not compel him to do so.

The WITNESS: I will state for the information of the attorney and the court that I declined to do so in the Missouri Case and I think that as the matter stands now, I will decline to do so in this case.

Mr. MOORE:

Q. You stated in that connection that this basis of division in which you took 108 separate accounts, reflected the expense of the

state and interstate business, respectively.

Now, I want to ask you this: was the formula that you speak of made in accordance with the statement you have made in evidence today as to your views as to the basis upon which the division should be made?

A. Yes, as a general proposition.

Allow me to state right here that I stated in my testimony, when I started, that this was very general and roughly made, and while there were 108 accounts—I believe that is the number of Interstate Commerce Commission accounts—

Q. I believe that is correct.

A. I did not make 108 computations on it. I lumped them as I found them expressed upon this statement "K"—I believe it is furnished by the accountants for the state—and did it very roughly.

I do not want you to think in that matter that I made 108 computations. Knowing what I could group together, I made 3600 groups of them and roughly divided them, and that is the reason I stated that a more accurate division, and taking them item by item, would produce undoubtedly a result varying somewhat from the \$30,000 difference which I stated I had.

Q. In arriving at that result did you divide the expenses between passenger and freight on the train weight basis that you spoke of this morning?

A. Yes, sir.

Q. Where did you get the data for doing that?

A. That was simply from the general idea I had of the weight of a freight train, as I quoted to you today,—a passenger train 250 tons and a freight train in the neighborhood of 900 tons—and take the switching rate into account; that is the reason I spoke of the general application.

Q. Did you think that any allowance should be made in favor

of local trains on account of switching?

A. As regards the wear of the track, yes, sir, there should be some

allowance made.

As regards the other expenses of running your train, what you would call your "haulage" expenses, I would determine that by the absolute allocation of my train expenses.

Q. Does that apply to road switching?

A. Yes, sir; that is, when an engine reaches its terminus, it has done a certain amount of switching, but the men are paid for their

run. There is no expense though they have done the switching. It is included in the local trains' expenses. Having the 3601

local trains' expenses, you have covered all the switching work that those men have done, but you have not covered this one point, which is wear of the track due to that switching. That is the only point that is not covered.

Q. And that is the only basis upon which you make an allow-

ance for switching?

A. Yes, sir.
Q. Suppose your local train had lost time on account of the large amount of switching and the crew had to work overtime?

A. That is provided for in the rules of the Company, Where there is a detention at a station, the time they are detained is charged up to switching and is treated as a switching movement, included in switching mileage. That is the usual custom and I have no doubt

it is so upon the roads in question here.

Q. Now, speaking again of the division of expenses between state and interstate business: I would like you to tell me if, after you divide the cost on the basis that you mentioned a while ago, you make any allowance in favor of the in rastate freight on account of the extra expense of handling, or add tional expense of handling that class of freights?

A. Do you refer to train expenses, haulage expenses, station ex-

penses, or expenses in general? 3602

Q. Expenses in general? A. Yes, sir, we make the allowance for that in our "station expenses," the extra cost of handling. We make no allowance for the haulage expenses—that is the train expense of intra freight, beyond the fact that so much of it was hauled upon a high priced local train and so much of it was hauled upon a low priced through train.

We make an allowance for the terminal switching of intra freight by, in my method, using the ton basis for that, and outside of

those we make no further allowances.

Q. How do you apportion your "Yard and terminal expenses" as between through and local trains or between state and interstate business, whichever way you may divide it?

A. I have heretofore divided that directly upon the ton basis.

Q. You do not divide it on the basis of cars handled?

A. No, sir; that is the matter of which I said a few minutes ago, that I proposed to look into and see if the method which the state used in this case is better than my own. If it is, I think-with due deference to the state and their allowing me to infringe upon their patent—I will adopt it.

Q. Does not a division on that basis assume that every car has

the same handling?

A. Yes, sir.

Q. Without regard to what the contents may be?

3603 A. Yes, sir.

Q. Or what changes might be brought about by reason of the contents?

A. Yes. In two cases I have used what I call an "equated ton." That is, I have taken my less than carloads on the basis that only on an average 1/7 of the usual carload would be hauled upon a less than carload, or upon what we call the "peddling car," have, therefore, multiplied my less than carloads, inter and intra, by seven, and to them have added the inter and intra tons handled in the carload basis and made the equasion of my switching between inter and intrastate on that basis.

Q. Does that give proper credit for any extra amount of switching that would be done in connection with intrastate freights do you

think?

A. Yes, I think it would. Q. You think that would take care of it. It is based on an as-

sumption, of course?

A. No, sir, it is based upon an actual experiment, the data for which was furnished to me by Comptroller Gray of the Northern Pacific road, and is part of the testimony in the Minnesota case, in their preliminary papers filed to obtain the injunction.

Q. In applying it to another roads or to a different part of the same road, at different times and different seasons of the year, it would be an assumption that the conditions would be the

3604 same?

A. Yes, sir, we would assume that the conditions would It would not, however, be what I would consider a violent assumption, although there would be a variation.

Q. You stated a while ago that this division on the basis of cars handled assumes that every car has the same handling: is that a

correct assumption?

A. No. sir, it does not have the same handling.

On the doctrine of averages we could safely go on that basis, however, for in handling a large number of cars-while we would pick out specific instances where this would not hold, yet on thousands of cars which they have mentioned here, the doctrine of averages would hold and render that a usable factor.

Q. The state's accountants in this case have made an allowance in dividing engine house expenses, of 12 per cent, on account

of the shorter run of local trains:

How about the application of that to state and interstate, as well as to trans-state business? Do you think that would work equitably between the three classes of business?

A. Well, you cannot well apply it that way with the method

which they have done, as that engine expense-

Q. It is engine house expenses.

A. The engine house expense is necessarily taking care of the engine after it has gotten in and it would be simply an expense which would have to be set up and then divided upon the

3605 basic factor.

Q. What I mean is this: those different engines are engaged in different classes of service. Some of them do much more work than others. Some of them do work in which there would be a necessity for a greater amount of repairs. Some of them haul state freight and some of them haul interstate freight. Some of them haul trans-state freight. All of that sort of thing.

Do you believe that that allowance of 12% will work fairly all

around?

A. Oh, yes, sir; that would work fairly. I don't know of any engine, though, that hauls specifically any kind of freight, such as interstate or intrestate or transstate.

Q. I understand that and what I am going to ask you is this:

Should there not be some method devised, if you are going to adopt that system, by which the onerous service of the engines, that which applies to the class of traffic which necessitates more onerous service, should not, as nearly as it could be located and fixed upon the service?

Mr. HILL: What do you mean by "the more onerous service?"

Mr. Moore: I mean increased switching, we will say as between short runs and long runs, and those runs in which the engine is pulling a "peddling" train as against one where it is pulling

3606 a train of full loaded cars.

The Witness: That would have nothing whatever to do with the engine house expenses. That is simply a terminal expense. It don't matter if the engine is worked hard the whole trip or run light the whole trip. It goes to the engine house and receives the same attention anyhow. If it has undergone any damage during the time, it is charged up in engine repairs and comes into the accounts through the "Maintenance of equipment" expenses.

Q. The evidence in this case shows that the average haul on one of the lines that is engaged in this litigation, of interstate freight is as to state freight, five to one, and on the other something over three to one:

Will you make any allowance of extra expense in the handling of that state traffic on account of that difference in the haul?

A. Yes, sir, the allowance would be made in this account as handled here by the expense of through train and the expense of the local train and in the division on the ton mile haul.

Q. That is the only allowance it would make?

A. Yes, sir, that would take care of it, with the addition they have made for the extra terminal in each case, which would be required by the shorter haul.

Q. Now, in division 7 of Exhibit "K", the method of dividing train costs is developed and after that division is made on 3607 the basis of the percents that are set out in Exhibit "C", the cost of each kind of traffic is divided between intrastate and interstate in proportion to the volume of traffic of each kind handled in each class of service. This is set out in the same division.

The effect of that is to first divide the train cost as between through and local trains to ascertain the relative tonnage of state and interstate on those two classes of trains, and then divide the expenses between state and interstate traffic on the ton mile basis, is it not?

A. Yes, sir.

Q. In other words, the effect of that is to adopt the ton mile basis

as a unit of division after having made such division and allowances as the accountants thought proper for extra service, for the extra expense incident to different branches of service?

A. Yes, sir, on what we call the "haulage" items, the train service

items, yes, sir.

Q. The difference between that and the ton mile theory of division, as it has been heretofore spoken of, is that the extra allowances were not—the extra allowances of increased costs were made before the ton mile theory is applied instead of after?

A. Not on the ton mile theory which has been so severely criticised. The ton mile theory which has been so severely criticised is

the application of the ton mile to all expenses, whether mile3608 age or cost haulage, and this is simply determining the cost
of the local train and then the proper factor, when you have
determined that cost of the local train as against a through train,
is to take the ton miles on each, as that is the proper factor for the
basis of train expenses.

Q. Does that basis of division have any regard to the different

kinds of commodities that make up these ton miles?

A. No, sir, it does not. It handles them directly as—that is, a ton of silk has no more to do with it than the ton of coal that is on the train.

Q. In so far as the criticisms that the ton mile basis are founded upon, the disregard of the differences in the commodities carried.

this is as open to criticism as the other, is it not?

A. Certainly, the very establishment of a lump cost for both classes of service, through and local, without regard to the loading which as a general thing goes to make up those trains, is subject to that criticism.

The engine, and the fuel burned, as a usual thing do not care much what is back of it: nor does the engineer care what is back of him, whether it is a ton of coal or what, and it practically makes no difference what it is, save in the matter of the bulk which it has and therefore of a heavier load to haul to get that much live traffic over the track. In that case there would be a difference.

3609 I could readily see where a train loaded habitually with high grade stuff, where the weights hauled would be lower per carload than the heavier low grade stuff, if that was continued indefinitely it would be a matter which we would have to take under consideration, and in the commodity rates, which I have had to examine for some time for determining the cost of carrying a single commodity as against the other freight matters, I have taken that into consideration.

Q. The only item in the exhibits filed by the state in this case, in which the cost if actually ascertained from the records of expenditures is "Loss and damage to freight" in transit and wages, I believe

every other item-

Mr. Hill: Wages and fuel? Mr. Moore: Possibly fuel.

A. It is susceptible of allocation—

Q. Well, we will assume that it is those three, but I think your

examination of the tables will show that merely on the "Loss and Damage" of trains in transit it is actually located. But aside from that, and possibly the other two mentioned, all of these divisions of expenses were made upon assumptions, more or less arbitrary, were they not, Mr. Hillman?

A. No, sir.

Q. Well, let us see—— A. I would like to explain that. I want to answer it in that way in order to make the explanation if you will allow me to do

Q. Very well, you may do so. 3610

A. There is an assumption in the cost of the local train that there must be 50% added to the mileage on account of the

switching done.

There is also an assumption that the switching mileage is 50% more destructive to the equipment than regular line train mileage. Those two matters are assumptions and do enter into the train costs, local and through, as shown upon this exhibit, and, therefore, each of these exhibits are affected by the matter which you mention, of an assumption being in them.

But the reason I wanted to make that explanation was that having determined this cost of the through and local trains, I consider division of the expenses upon the amount of tonnage hauled of each class, inter and intra, on through and local trains as-I will not say mathematically exact, but I feel very much like saying it-I con-

sider it in the nature of a fact.

Q. You mean after you have assumed that the differences in

A. Between local and through trains, ves, sir.

Q. Now, there are a number of cases there where indirect expenses are divided on the basis of direct expenses of maintenance of way

comotives"; and then take "General Expenses" and "Traffic expenses"-perhaps I am mistaken in saying "Traffic expenses"take "General expenses"; that is on a basis of a direct expense:

All those are based upon the assumptions upon which the original

division or the direct expense is based upon, is it not?

A. Yes, they are based upon the divisions which have preceded them. Any error in the figures which have preceded them will, of course, reflect itself in any of those matters which are divided, as you say, upon the basis of all accounts pertaining to that block or to the preceding blocks.

Q. I imagine we all agree, but I will ask your views about it: if it is not a fact that any division of expense of conducting state and interstate traffic is compelled to be founded upon assumptions,

more or less arbitrarily?

A. They are founded, yes, sir, upon assumptions which are more or less arbitrary-I hardly like to apply that term to them, as they are arbitraries founded upon well known facts incident to railroading. Yet there is in many cases and in most cases, a certain element of uncertainty and to that extent the application of these various factors is an arbitrary matter.

Q. I believe you stated this morning that while the accounting officers of railroads, are in fact, of industrial concerns-particularly in railroads—devised methods which they used in

separating and apportioning accounts, they had to be based ultimately and finally upon the characteristics incident to the different kinds of service represented by those accounts:

That is substantially what you stated this morning, I think?

A. Yes, sir; that any arbitrary basis of division or any basis of division which is not based upon an investigation of the facts in the case is valueless.

Q. How do the accounting officials of railroads get the information as to the cost in the handling of traffic and the trains on their

lines?

A. It is sometimes the division between the various operating accounts, of which I indicated there are 108 as made by a clerk in the Auditor of Disbursements office.

Q. In what? A. The clerk in the Auditor — Disbursements office. A man who is practiced in those matters and understands the division that is made at headquarters.

In other roads it is paid for each division by a division accountant and the results of his division, as sent in, between the various operat-

ing accounts, are merely summarized in the main office.

It depends upon which way the accounting forces of the road is made up, in the division account or a general ac-3613 count.

Q. In a general way, that is the manner in which accounts are made up in the offices?

A. Yes, sir. Q. What I want to ask you is this: where do the accountants who make these entries get the information upon which they base their various entires and their various divisions of expenses?

A. They usually know the detail itself. It is a detail matter.

They usually know the detail itself.

Q. In making your division of yard expenses between state and interstate, do you use the same total tonnage as you do in the division of "station expenses"?

Mr. Hill: Are you referring to those in these exhibits? Mr. Moore: No, in his statement as to his method.

A. No, sir; in my method I would prefer, and would always if I had the time, make an analysis of the tonnage handled at my stations, which would be principally carload lots for labor-for what they call "Station labor" and then divide the expenses of the agents and their clerks upon an accredited basis which would include the car lots. But if I had not that, I would then use the same tonnage for my division of my "Station expenses" as I would my "Switching expenses" if I did not go into that detail.

Q. Does that include the total figured tonnage? A. Yes, sir, it includes the total tonnage.

Redirect examination. 3614

By Mr. HILL:

Q. Mr. Hillman, as I understood your position about the division between freight and passenger, you did not approve of the division which had been made by the railroad companies in this case, and wanted to get one based on the weights; is that correct?

A. Yes, sir.

Q. Now, I want to ask you this: Suppose you could not get and did not have the data to get the weights of the passenger trains and the passengers carried, and you had the - of shifting the cars around from here to there, and you had to go back to the records two or three years, which would be an impossibility: what unit would you then adopt as the nearest approximation?

A. If I was debarred from that, I would be compelled to fall

back on the train miles as an indicative factor, not an actual.

Q. The next best to the truth you could get at?
A. Yes, sir; if I was unable to get other items, I would be com-

pelled to take that.

Q. Mr. Hillman, I believe you stated that you thought it was proper, in dividing the expenses of "Maintenance of way" also to take into consideration the weight:

I will ask you if that is a factor that enters very deeply into that account, and I ask you what is the usual division of "Maintenance of way" between wear and weather?

A. The usual division of the "Maintenance of way and Structure" account, as between wear and weather is: "ballast"-10% wear; 90% weather.

Q. I believe that is what Mr. Parker, the engineer of the Texas

Commission testified they had been using.

In view of that fact does this question of weight cut deeply into the division of expenses of "Maintenance of way"?

A. Not deply; but it would cut some.

Q. I believe it would only affect the 10% that is usually ac-

cepted as the amount attributable to wear?

A. Well, it would affect all those accounts, of which the one that I have mentioned, the ballast, is only a representative account. There are a number of others in there, such as ties and rails-

Q. It would affect the others, whatever the proportion was?

A. Yes, the difference between the weight proportion and the train mile proportion.

Q. If you were not able to obtain the data to ascertain the weight, what would be the basis that you would use for '-aintenance of

way and structures"?

A. If I were not able to obtain the train weights, I would then take for that portion my train miles and obtain the per-3616 centage which exists in the train miles,

I would then take my car miles and obtain that percent-

I would add the two together and divide by two and use that.

I would do that because it would come closer to the train weight asis than would the train mile basis, and that would be the basis which I would be seeking.

Q. I believe that is what is done here—put the car mile on the

train mile.

Mr. Hillman, you testified to some question that Mr. Moore asked you that I did not quite catch. I got mixed up on which subdivision you were referring to about passenger trains. I believe it was the division of "Mail and express." You and me had some discussion about that and in looking for the place I failed to catch it: Would you mind repeating what the substance of that was?

I think it is (B) on page 2 of the "passenger." I am not quite

certain, but I will ask you to look at it and see.

A. There were two thoughts that came up with reference to that matter and I will ask you if you refer to the one concerning whether it was proper to charge the repairs on mail and express cars, and coaches, on the basis of the mileage by these different cars, regard-

less of the fact as to whether a repair on a coach might not 3617 be more per year or for a given time, than the repair of a

package car. Was that the one?

Q. Yes, I did not catch Mr. Moore's question or your answer to it.
A. He asked if I considered—that is it is my recollection that
he asked if I considered that a fair division in view of the fact that

there might be a difference in the use of these cars.

My answer was that the proper division would be to determine the amount of repairs necessary to keep mail cars, per unit, in order; express cars, per unit, in order; and coaches, per unit, in order, and on that basis to correct, if necessary, the mileages of the respective coaches, mail cars and express cars, and use that unit.

Q. Now, Mr. Hillman, I want to read you one of the Iron Moun-

tain Exhibits, which is statement No. 5 of Exhibit No. 3:

"The bases used in dividing operating expenses taxes and other fixed charges between states and between the freight and passenger business."

That is the heading.

"Maintenance of Equipment:

This account includes all cost of repairs, renewals and depreciation of cars and locomotives, also shop machinery and tools. The cost of repairs, renewals, and depreciation of equipment being of a general nature and not applicable to any particular state is divided between all states upon the basis of the mileage of each class of service in each state.

The cost of repairs to shop machinery and tools, stationery and printing, and supervision, is divided between states upon the 3618 basis of the total engine mileage over the territory under the

jurisdiction of each shop superintendent.

The cost of repairs to freight and passenger cars are compiled separately and all expenses of a common nature is divided between freight and passenger upon the basis of the number of train miles in each class of service,"

That gives you the explanation of the way the railroad company has handled the freight accounts of equipment.

I will ask you, in view of that, what you say as to the correctness

of the average car mile basis being used here?

A. If the passenger car mileage—the repairs of passenger cars is taken on the total passenger car mileage for each state, regardless of the class of passenger cars, the division shown upon page 2 of this Exhibit M, is correct.

Q. Now, Mr. Hillman, I understood from the questions put to

you, that the plaintiffs were criticising this division of "Traffic expenses" apportioning a part of the same to mail and express on the revenue basis: You seemed to have had quite a discussion with Mr.

Moore on that subject:

I want to call your attention to Exhibit No. 3 in this case, filed by the Iron Mountain in which 21% of passenger expenses is charged to the "miscellaneous" on the basis of the revenue. That "Miscellaneous" of course you understand includes the mail and express, and the expenses divided includes "Traffic expenses";

Do you think the railroads having made that charge that 3619 way, that the state is subject to criticism for making some charges against the traffic there, or against mail and ex-

press—or the traffic expenses, I mean?

A. I would consider that a very fair precedent at least, for adopt-

ing the same method.

Q. Mr. Hillman, I believe you heretofore expressed the opinion that it is not really proper to get at the absolute truth of it, to divide the traffic on the revenue basis, but in the absence of any better basis, you have been driven to accept it: is that about your position on that subject?

A. On the "Traffic expenses" yes, sir.

Q. And that is what the railroads have done in this case and I presume, in the cases which you have been interested in?

A. Yes, sir.

Recross-examination.

By Mr. Moore:

Q. Will you explain what you mean by the statement that in dividing the freight and passenger expense, you would take the

"train miles" and the "car miles"?

A. I meant by that, that in default of having my train wait for a factor—not being able to determine that factor, I should take my train mileage, switching included, and establish the percentage which existed between freight and passenger.

3620 I should then take my passenger car miles and my freight car miles and establish the percentage which exists between

those two.

I should then add these two percentages together and divide them by two and use that factor as approximating more nearly to the train weights than I could find in any other way.

Q. If you could get, though, the cars, have the weight of the

contents and passengers of cars, and the number of passengers you would use the train weight as your factor?

A. I would use the train weight.

Mr. MOORE: That is all. Mr. HILL: That is all.

3621 Cross-examination of Mr. T. A. Hamilton.

By Mr. MOORE:

Q. I believe you worked for the Missouri-Pacific Railroad Co. from 1893 to 1900, the last time, did you not?

A. Those are the dates roughly, yes, sir.

Q. You have already stated the capacities in which you have worked, and now, what salary did you receive during this period?

A. I think the maximum salary that the Missouri-Pacific Ry. ever paid me was \$50 a month; I would like to say in that connection, that I left the service of the Company because they had promised to pay me more, and after I had, as I thought, made good on the proposition, they didn't keep their promise, and I left the road for that reason.

Q. You went in 1900 to the Illinois Central? A. Yes, sir.

Q. Engaged in billing freight?

A. Yes, sir.

Q. What salary did you get there?

A. The first month, as I recall it, \$50. a month; I went on up to a salary of \$70, in a month or two.

3622 Q. What was your position during the time you worked for the Louisville & Nashville, during 1901?

A. They paid me first \$70., and then \$75., and as chief billing

In the office of the General Agent at St. Louis, my salary was \$90. on the payroll, and the general agent, out of his expense account—that is a state secret, but it is a fact nevertheless—brought it up to \$110.

Q. When you returned to the Iron Mountain in 1903-A. I was temporarily loaned to them.

Q. But you returned to the Iron Mountain in 1903, you say?

A. Yes, sir, that is what I refer to.

Q. Weren't you with the Iron Mountain or Missouri Pacific two or three years after that date?

A. No, sir, I spent two months with them at Bixby.

Q. I will withdraw that question then; I was under the wrong impression; what salary were you getting when you were work-

ing for them at Bixby?

A. The superintendent allowed me \$85., Mr. Peyinghaus had promised me a salary which the L. & N. had paid me, and the first month he was in charge of that station, I was paid that extra ten dollars; I never knew where it came from, and the second month I got it in the same way, although Mr. Kell was agent,

Q. After that, you continued with the L. & N. until you went to Haskins & Sells, and you stated what your salary was?

3623 A. Yes, sir.

Q. You made exhibit the division of expenses shown in statement 4 to exhibit 3, the basis of your work in preparing Exhibit I, did you not?

A. Not in preparing Exhibit I.

O. In the work you did, what did the state's accountants do, or did they accept that division as shown by the railroad company?

A. The expenses shown in statement 4 of Exhibit 3 for the Iron Mountain and State of Arkansas, were verified by us to this extent, we had recourse to the company's expense distribution books. on which the department, at that time under Mr. Johnson's charge, distributed the various vouchers and expense reports, the superintendent's expense reports throughout the various accounts. dividing these expenses between freight and passenger, or rather in checking and taking off the company's division of them from that record, we necessarily verified the total as set forth by Mr. Johnson; we didn't go back of his record; that is, we didn't go to the individual vouchers or to the superintendent's reports, except in a few minor instances, and I saw no objection to that as a basis, for the reason that it is made the basis of all the company's statistics.

Q. And you regard it as a correct and proper basis? A. Yes, sir, we applied some broad tests to it also, to see whether this period averaged up with charges of like

character on other periods; on track maintenance, for instance, we took the average cost per mile for several years back, and saw that they averaged up, and that this was fairly normal,

Q. You found though, no objection to that as a proper basis, or as to the manner in which it had been worked up, as far as your veri-

fication went?

A. We have no doubt as to the accuracy of these figures; I don't think there is anything wrong with them.

Q. What was your views as to the revenue train mile as a basis for dividing common expenses between freight and passenger traffic?

A. My opinion on that subject, of course, must be based on just what thought I have been able to give it, and what I have heard people say; I have had nothing to do with the operation of trains in an executive capacity. If you want that, I would be glad to give it to you.

Q. Yes, I would like to have that.

A. I should think it was a very fair basis, basing my opinion on what I have just stated, that the extra weight of the freight train would be off-set by the extra speed of the passenger train, and that might make it a fair division.

Q. If that was a proper division between freight and passenger, why did you depart from it in dividing the expense of

operating local and through trains?

A. It seems to me that where you are considering the freight train as one unit, and the passenger train as another unit,

usual divisions between the two classes of service, and you have lumped all your freight trains, that that might be some justification in itself for the first division; that is, you have light local freights and heavy through trains, and they might average up with passenger trains, but when you come to the division between two freight trains, you have a common unit there, both hauling freight cars, and the number of car miles would be the better division.

Q. In your formulas prepared by you and filed by Mr. Wharton in this case, you have disregarded the contents of the cars, haven't

you.

A. I would like to take a little exception to that; you say formulas prepared by me and filed by Mr. Wharton; the formulas were prepared by Mr. Wharton and filed by him; I simply consulted with him and did the field work and gathered the figures upon which the formulas were made.

Q. Tell me just what connection you had with the exhibits filed by Mr. Wharton, I would like to know, as accurately as you can

state it?

A. We discussed some of the points he referred to in his testimony, and I gave him the benefit of what knowledge and information I had on the subject, from my knowledge and experience;

aside from that, my connection was in preparing the figures, 3626 doing the mathematical work, making the calculations, after

the data was gathered.

Q. Under whose direction was the method and division adopted

in the exhibits filed by Mr. Wharton, prepared?

A. Mr. Wharton, I think, prepared the formula largely himself; we consulted somewhat about it, he asked my opinion on certain points, but the formula was largely his.

Q. Those methods of division were not made at your suggestion,

and were not your creation, you might say?

A. No, sir; we read the testimony of witnesses in this case, and we read the testimony of witnesses in other cases, and we have discussed it somewhat, and after those discussions, Mr. Wharton arrived at this formula; these bases.

Q. What I want to know is, who it was that conceived the idea of using this method, whether you or Mr. Wharton, or some other

person

A. It was got at in that way, but in the last analysis, Mr. Whar-

ton prepared the formula you see in these exhibits.

Q. To go back to the question I asked you a moment ago, in making your divisions on the car mile basis, did you take into consideration the weight of the contents of the cars?

A. No, sir, a car mile was a car mile with us.

3627 Q. You have treated an empty car in the same manner you did a loaded car?

A. Yes, sir.

I would like to go back to the question you asked me awhile ago; in questioning me as to what compensation I received from the Missouri-Pacific Railroad; I was employed the major portion of my time under the direct supervision of Mr. W. Q. Morcom, who was

then chief clerk of freight accounts, a position which nowadays on the Missouri-Pacific carries the title of Auditor of Freight Receipts.

I would like to state that Mr. Morcom often regretted that Mr. Schuyler, the general auditor, would not allow him to pay me any more salary, and in fact, he moved me temporarily out of his department and the line of my service, in an endeavor to get me more salary; I never had any fault found with my work; I relieved a man whose salary was the maximum in the department, I recall, for several months in succession; I checked the accounts of Kansas City, Atchison and St. Joe stations, filling the position of the highest salaried man in the department, outside of Mr. Morcom himself, and I finally left because they wouldn't pay me any more.

Q. Are the employees of Haskins & Sells graded with reference

to salary and importance of their work?

A. I don't know what guides our firm in fixing salaries; I don't know first hand, but it seems to me, the basis is, the man's ability to earn a salary, and the character of work he can do.

Q. What I asked you was, if their employees were graded, first, second and third grade, and their salaries fixed on that basis?

A. We have classes, Class A, Class B and Class C, and the men in Class A get more than the men in Class B, and the men in Class B get more than those in Class C.

Q. Class A are paid higher than class B men?

A. Yes, sir, I should judge so. Q. What class are you in?

A. I am class B man at present.

Q. You referred in your testimony in chief, to a statement prepared by you or in which you assisted in the preparation, in September 1906, I think it was, on the C. B. & Q. road; was that statement similar to Exhibit 26 filed by Mr. Johnson and Mr. Roth?

A. Yes, sir, I think it is pretty near an exact copy, as far as form

is concerned; of course, the figures are different.

Q. How long were you engaged in that?
A. Four months and a half.

Q. You did similar work on the Missouri Pacific?

A. I did part of the time.

Q. How long were you engaged in that?

A. About a month, I think, until I went on to take charge of the

Chicago work.

Q. You stated that you have assisted in the audits and conducted some audits of manufacturing, business concerns, and so on?

A. Yes, sir.

Q. What do you find to be the annual earnings of concerns engaged in that class of business, as a rule? I mean, just stated in a

general way, about what the average net earnings are?

A. I wouldn't undertake to answer that without having the figures before me; they fluctuate too much, some extremely high and some extremely low; I have some in mind that pay as high as 44% and some that do not pay but 3 or 4, much bigger concerns.

Q. I believe you stated you had verified the methods used by Mr. Roth in preparing Exhibit 26; that was prepared at the request of Mr. Wharton, wasn't it?

A. I can't say as to that.

Q. Were you not present when the request was made in the Judge's chambers at Little Rock?

A. No, sir, I understood from Mr. Roth or Mr. Johnson that it

was so made.

Q. You are familiar with the method used in preparing that exhibit?

A. Yes, sir, I think so; Mr. Roth gave me a memorandum of it.

Q. You have already explained in considerable detail and some length, the manner in which you proceeded to make that exhibit I, and I shall not take you over that ground, because I think 3630 you covered it sufficiently, but I would like you to state how

long you were engaged in that work?

A. I began in July, 1909, and I had some of my force working on that up until the end of the year, say in December sometime; I thought I had a memorandum here of the date, but I see that I have not; we found it necessary to go over the figures later on, and finally turned the statement over to Mr. Johnson, as I recall it, in February.

Q. The 14th of February, I understand; did you turn it over to

him at the time you completed it, had it ready for use?

A. It was never completed until it was turned over to him; I did some work on it a day or two before he got it; it was practically

completed in December some time.

Q. It was not completed until after the 14th of March, you gave Mr. Johnson some sketch or an outline of it; I understood at that time, it was not ready for you to give him the real sheets and de-

tails?

3631

A. I may be mistaken as to the dates; I know we had the statements in practically complete form; there was some revision and some checking of it; we checked the whole recapitulation over after that time; it was practically in complete form, either in late December or January, but it was not turned over to Mr. Johnson until possibly March-I thought it was February.

Q. That statement covered about 11% of the total business

down in that month, didn't it?

A. Expressed in what terms, Mr. Moore?

Q. You worked up only local trains?
A. Yes, sir.
Q. When I say the total business, I mean of the business on local and through trains?

A. Do you mean ton miles or do you mean trains?

A. You can answer it any way you see fit.
 A. I would have to look at it to see.

Q. I will say first, ton miles, I think you made the statement while you were on the stand the other day.

A. Expressed in ton miles, it was 11.18% of the total business. Q. What part of that really was the most tedious and consumed the most time?

A. Locating the way bills for the car.

Q. And why was that so?
A. I think the explanation of the process we had to go through, which I gave in my direct-examination, is perhaps the best answer to your question; it was a very tedious process.

Q. You used the time cards, train dispatchers' records, wheel re-

ports, and waybills, just speaking from my memory.

A. Yes, sir, and some records from the auditor's office.

Q. The ultimate record was the wavbill?

A. Yes, sir, those were my instructions to my force. 3632 Q. And it was the waybill that gave you trouble in locating. and took up the time?

A. Yes, sir. Q. You turned your work sheets over to the accounting department of the railroad? so that they might verify your work?

A. I turned them over to Mr. Johnson, yes, sir, in a conference between myself, Mr. Clardy and Mr. Wharton and Mr. Johnson.

Q. In looking over your work sheet, I see you prepared a form, pencilled with certain headings, and among them is the heading for reference to the waybill?

A. Yes, sir.
Q. And I find also that on most of the forms, I have examined, and I am told that is the case on practically all of them, that the reference is usually left blank?

A. Yes, sir.

Q. And there is no means of information for verifying your work by tracing of the waybills, was furnished by those work sheets? Is that correct?

A. Yes, sir, I recall the form very distinctly; this is apparently one of the first sheets that was set up, I see it is numbered 11, and I see from its heading, it covers the first portion of the line we tackled, the main line, and we set up this form, not knowing where

our investigation was going to lead us; it was a new proposi-3633 tion, with the intention, if we found it necessary, to set in

the waybill number; I can recall a great many sheets where we have noted the waybill number, simply for our convenience; where it was not convenient to go from our record we were working on to the waybill, the waybill was shown on the sheet; simply as a matter of convenience, to aid us, it was often put down.

As I see it, your question comes to the proposition of leaving no information by which the waybills could be located and referred to. thereby leaving anybody who followed us, to go through the same

steps we did?

Q. Yes, sir.
A. That is true; we did not put the information on there because I had four men at my disposal for the matter; I don't doubt we would have been working on the statement perhaps yet, if we had done that; not only this statement, but every other statement I compiled, I took pains at every step to inform Mr. Johnson of what we were about to do, and we would have been glad at any time to have his men work with us; in fact, we would have saved the state some money; there was no desire to hold up these folks and make them do unnecessary work—we were just trying to shorten ours.

Q. Wouldn't it have been an easy matter to insert the waybill reference in the blank space prepared?

A. It would have taken a great deal of time.

Q. I can't see that; of course, you had to have that information as a basis of your work, and having the information 3634 and having the space ruled off for it here, why could it have

produced any delay of any consequence to insert?

A. I think I can make that a little more clear to you; for instance, two men worked together, one with the scale record in front of him locating the cars on these trains; another man with the waybill book. one calling him the number of waybills he found on the scale report, the information as to the train, and the second man calling the weight of the car, and the classification, a much quicker process than noting down the waybill number, and afterwards going through the waybill books, just to refute any charge of unfairness.

I will say that our sole object was to save time, not to prevent anybody from checking the statement; in addition to that, I would like to say too, that in a great many cases, where the waybill book was not readily accessible, reference to those sheets will show that we have noted the waybill number on there, as our own future guide;

we did that in order to save time.

Q. I notice here statements of weight of interstate freight? not those statements taken from the wavbills?

A. Yes, sir.
Q. Would it have consumed any more time to insert opposite that the number of the waybill?

A. I thought I had covered that; we worked a great deal in 3635 pairs or teams; for instance, Mr. Wright would take the scale report, find the cars in that scale record that we wanted on the trains, when the waybill was issued, from and where; I had the waybills scattered all around me; being familiar with them, I could keep track of them; and he called the waybill number; I opened up the book; he called the weight and it was put on that sheet.

Q. The waybill number was known at the time; how much more time would it have taken to insert the number of it in these exhibits?

A. Not a great deal: I can give you no other reason except to save time.

Q. Would there have been any material loss of time; you had that information, the number of waybill at the same time you had the weight shown by that waybill; you called out the number and inserted the weight, and although it required a fewer number of figures to insert the number of the waybill instead of the weight, did it involve a loss of time?

A. My judgment was, when I was doing the work, that it did.

Q. With both those facts before you, as a common sense proposition, with all the information called out to a man who was making the figures, and who put down figures of weight which involved a larger number of figures, and with a blank space for them, would it require any considerable loss of time?

3636 A. No, sir, it would not require a larger number of figures than the waybill; you would have to write in the station series covering the waybill number, and perhaps its date, and if it were a foreign line waybill, you would have to write, in some cases, the name of the road that made the waybill.

Q. I see right here before me in the space under the head of waybill reference, a few references on this sheet; I see under that head 3926 F. S. W.; that is the kind of writing that was necessary to iden-

tify that waybill?

A. No, sir, "3926 F. S. W." means that it was received by the Iron Mountain at Ft. Smith from the Ft. Smith Western; that is the number of the Ft. Smith station, and we had to go to another record for it.

Q. Even these references in this sheet are misleading?

A. Those sheets were not intended as exhibits.

Q. They were your work sheets?

A. If in the Missouri-Pacific General Auditor's Office, there is a man who cannot look at that sheet and tell what that means, I wouldn't think much of his intelligence.

Q. Well, we will assume that is an exact reference; I was not criticising that; assuming that does give the waybill number, tell me how

much time it consumed in giving those figures there?

A. As to how much time it took, I couldn't say; it wouldn't take but a very small time to write the figures you had on there; we only made a reference of that kind in guiding us, where we had 3637 to; you will find no unnecessary references there.

Q. You say sometimes it took you two or three hours to

locate a waybill?

A. Sometimes it did, but I can readily say that our plan was no harder to follow than that the railroad has employed in this case.

Q. Your failure to make a record of the waybill reference, if the railroad should undertake to check those figures, would involve upon those engaged in it, the necessity of going through the same labor you did, and tracing it?

A. Yes, sir, inasmuch as they did not see fit to make a joint matter

of it, in the first instance.

Q. Isn't it a fact that in the data worked up by the accounting officials of the railroad, and delivered to the representative of Haskins & Sells, they gave you tracing references so you could verify their work without going to as much labor and trouble and expense as the railroad would be put to on account of the absence of those waybill identifications?

A. I don't know that I follow you; I will say this, that Mr. Johnson has shown us every courtesy and every facility, but we have had

to dig out a lot of stuff for ourselves.

Q. Did Mr. Johnson give you the figures based on some record without the references? Didn't he, as a rule, give you the reference to that record so you could turn to it? And you didn't do 3638 that, you did not reciprocate in preparing these work sheets?

A. Yes, sir, but Mr. Johnson has given us no statement of

the magnitude of that one.

I gave you an incomplete answer awhile ago; you asked me whether it was not a fact that it took three or four hours to locate a waybill for a car; it did for a few, for perhaps some hundreds of them, but the great bulk of them were not that hard to locate.

You used the wheel reports for what purpose and to what

extent?

A. First, as I explained, when working on the dispatcher's sheet. if it showed a local train in operation where a through was scheduled to run, and didn't show on his sheets positively that that local train was annulled or cancelled, we had reference to the wheel reports for that section of road for that day, to see if he had not himself classified a local train as a through train, and as I explained in my direct examination, having satisfied ourselves that he had misclassified it as a through, we took that particular train as a local for that day; that was the first use we made of the wheel report; it gave us the character of the trains' work, and we classified them in that way.

The next use we made of it, was to get from it the numbers and initials of the full carloads, the point at which each car was picked up

and set out by the train, and I mention it because it appears 3639 on our sheets, the ultimate destination of the car, as shown by the wheel reports, although it wasn't worth much.

Q. Why wasn't it?

A. Because it was wrong in a great many instances.

Q. That grew out of the want of method and accuracy on the part of the conductor?

A. Yes, sir.

Q. To what extent can those wheel reports be relied upon as correct records of information written in them by the conductor?

A. As to the number of cars he pulled, as to where he picked them up and set them out; if that information is incorrect, the railroad knows nothing about what is going on on the road, and we assumed it was correct, and I treated it as correct.

Q. In other words, the identification and journey of the car?

A. Yes, sir. Q. You regarded it as substantially correct as to that?

Yes, sir.

Q. In other respect, how is it?

A. The conductor shows sometimes net weights, which may be correct and may be incorrect, depending on whether he estimated them, whether they were the billed weight, or whether they were the net weight obtained on track scales.

He shows the gross weights, car and load, which I should 3640 say are seldom, if ever, accurate; they would be accurate in the case where he had the scaling of the car on the waybill, because that would be an actual scale weight of the car and load, but in the case where the car had not been scaled, in the first place, the contents of the car would be shown on the waybill at an estimated weight; in the second place, to get the gross tons, he would have to add an estimated tare weight: I say be would have to: the tare weight is available on the side of the car, but as a matter of fact, the conductor estimates the weight of the car.

Q. Why does he do that, when the tare weight is printed on the

side of the car; isn't that for the information of conductors?

A. Yes, sir, and weighmasters, but my experience is that they take them up and weigh them on the desk in the yard office; and there is also a schedule on the back of the wheel reports of estimated weights for empty cars, to be used by conductors when they have cars not stenciled, or hauled without waybills, or miscellaneous information, it says here. My recollection is when I mixed with train men,—I was around the yards with them very often,—practically all of the time when a car had not been scaled, they estimated the tare weight, and filled up the estimated gross tonnage in that way?

Q. That is kind of guessing it off?

A. Yes, sir.

3641 Q. Are they as a rule, careless or particular or careful men?

A. They are as a rule careful, but they are not clerks—they are

trainmen.

Q. I mean of clerical habits?

A. As far as estimating car numbers is concerned, there is a check on that, and there is not much chance for it to be wrong; take a train leaving a terminal—I have officiated as yard clerk many a night and Sunday when I was chief bill clerk of the station the conductor goes out and checks the lists the cars that have been made up ready for him to take out on the road, the yard clerk accompanies him, takes the seal protection on the cars; they come into the office, the conductor takes his train book and calls on the yard clerk for the waybills by car number; those waybills are dealt out to him, and as he takes the waybill and enters the contents of the car and destination in his train book, he checks the car numbers to see that he gets the waybill for the cars he has in the train; incidentally, the yard clerk who has taken the seal protection for the cars, gives the conductor that information for the side of the train he took, so that he may have a complete record of the cars he takes out of the terminal, contents and destination as shown by

the waybill, and its seal protection; when he gets through 3642 checking up the train with the yard clerk, when he gets the seals on the cars, and has located the waybills for the cars as he lists them in his book, he has a pretty correct record of

what he has on the train.

Q. If I remember correctly, you stated on your examination in chief, that it frequently occurred the agent would have duties to perform on the platform which would interfere with his work in the preparation of way bills; I wish you would repeat your statement;

you know what I am calling your attention to?

A. That had reference entirely to less than carload business; the agent would have two or three packages of freight to be taken from his station in the local train, and he would make the waybill before the train arrived at the station, take the impression copy of it, have it ready to hand to the conductor, that he might take the waybill and check freight into the car from it; in order to do that, he must make a copy of that waybill without the car number, because he

cannot know in advance of the arrival of the train, into what car the freight will be put, and I said, for that reason a great many way-bills covering the L. C. L. freight, would be without car numbers, so far as the auditor's impression copy was concerned.

Q. In other words, that affects the value of the waybill as a record

of the car numbers?

A. Of less than carload freight only.

Q. I mean in L. C. L., the kind you are speaking of; is it a fact that practically the agent and the conductor go through the process you described awhile ago, of the one reading off the waybill and the numbers and so on, to the other one, and the numbers of the cars—the correctness of the numbers of the cars as shown by the wheel reports, being protected in that way?

A. Yes, sir, it seems to me that is a protection of it.

Q. The point I asked you, you stated awhile ago, as the principal reason why the description of the car numbers contained in the wheel report was more reliable than other contents of it, that the agent would read off perhaps some number, I don't remember what it was, and the conductor would take it and enter it, and in that way, it came in there by a mutual process between the two? That is what, I refer to now; I want to ask you if practically that is absolutely carried out, or if in the practical manner of conducting their work, the agent does not simply hand the conductor the papers he has, and the conductor takes it and later on works it out.

A. I can only speak from my own experience in a yard office, and I will amplify that process a little for you; as a matter of fact, the conductor takes his train as I described; he lists the numbers of the cars from the cars themselves in the train that is made up for him to take out on the road, and then he comes into the yard office, and asks for waybills to cover those cars; he is not allowed to

transport them without some form of waybill, the regular waybill or card waybill, which temporarily takes the place of the waybill; he comes in and asks the yard clerk for the

the waybill; he comes in and asks the yard clerk for the waybill for the first car in his train. The yard clerk files those waybills in little pigeon holes, according to the terminal number of the cars; the yard clerk takes the waybill; reads the car number, and hands the waybill to the conductor, tells him the contents and destination; the conductor takes that; the process is repeated until the train is covered.

I speak not only from observation on that, but from actual experience in handing out those bills, which was part of my duty in the Bixby yard that I spoke of, on the Iron Mountain; it was often my duty in the yard in East St. Louis, when I relieved the yard force during the press of business and lack of help; as a matter of fact, the conductor checks his train over with the yard clerk to see that he has the waybills for all his cars.

Q. You think, as far as the numbers are concerned, and the place of the car picked up and the place where it is dropped off, the wheel reports are fairly reliable?

A. Yes, sir.

Q. Do I understand that in other respects you do not regard

them as reliable records?

A. Not in the question of tonnage; you understand that the figures shown by the conductor may be the actual ones on the way-bills he has in his possession, but they are afterwards subject to weighing and revision, and to the actual tonnage being inserted, and of that, the conductor knows nothing.

3645 Q. Their habits, business and work is not such as to

qualify them for doing work of that sort, is it?

A. They are not clerks but trainmen, but I see no reason why the statement of cars they carry and where they carry them to and from, should not be accurate.

Q. I am asking if in other respects from these three, if you regard

those wheel reports as reliable records?

A. No. sir.

Q. Speaking about one feature of that record, you referred to, you said that the record shows where the car was picked up, and where it was dropped; tell me now just what you mean by that, take a station like Little Rock, where are the cars that are brought into Little Rock, destined to Little Rock, where are they dropped off the train?

A. My recollection is they would be dropped at Argenta on the

main line.

Q. What would the wheel reports show about that?

A. It might show they were left at station #829, 830 or 831.

Q. What are those stations?

A. Those are the stations in the Little Rock terminals. 829 is Argenta, 830 is Baring Cross, and 831 is Little Rock Union Depot; some of the conductors call the Little Rock terminals by that num-

ber, although it is a passenger station now.

3646 It might be shown as set out at Little Rock 3998, which is the number on the Ft. Smith branch, or they might have been shown, if they came up the Valley Division, to have been delivered at station 4000, which is East Little Rock, depending on where they were coming from and what direction.

Q. In other words, what they try to show is, they try to desig-

nate the place at which they were left?

A. Yes, sir. I might say in that connection, that while sometimes, take Little Rock for example, the conductor will show the cars left at 830 or 831 or 829, apparently three different stations; if his train went into Argenta, the heading of his wheel report is pretty correct, and that shows that he came into Argenta and took those cars into Argenta yard, since he showed those cars were left in Little Rock terminals.

Q. In other words, the information you think would be fairly reliable there as to the place of the yard he left it in; if he left it on the north side of the river, he wouldn't regard it as being left on

the south side of the river, would he?

A. If his train broke up at Argenta, it certainly did not take the car any further; if it broke up at East Little Rock, it did not take it any further.

Q. What does the record show, the wheel report?

A. In case of conflict between the information given in the body of the report as to where the individual car was left at

3647 Little Rock terminals, and that information given in the heading as to where the train's journey ended, we do not attempt of run the car any further than the train; if the wheel report showed the car stopped at Argenta, and the conductor said that he took the car to Little Rock, we figure it stopped at Argenta or Baring Cross; we consider Baring Cross and Argenta all one yard.

Q. In checking over the wheel reports, I wish you would state from your memory, where those reports showed most of the cars destined to Little Rock, we will say from the north, were left,

whether at station 829, 830 or 831.

A. I would have to have the sheets here to tell you, I don't recall now; I do recall that the conductors mixed those numbers at times.

Q. Then you took the train book-

A. We endeavored to get, as far as we could ascertain, the actual

mileage made by the car.

Q. Why is it that you do not include in your abstract, the description of the L. C. L. carloads; I think you stated in your examination in chief, that you included the number and initial of all full carloads, but you did not of the L. C. L.

A. As I explained before, we knew that it was impossible to locate all the waybills for L. C. L. package freight, and made no attempt to locate any of it; we saved time by not setting up the cars sepa-

rately; we afterwards applied the average loading as estab-3648 lished by the Cotton Belt test; the individual car meant nothing to us.

Q. What are the records in the office of the auditor made up

from, in regard of handling of freight?

A. The auditor's record of freight handled is made necessarily from the waybill, whatever records he makes of its handling; his revenue records are made from the waybill.

Q. They are the basis, I suppose, of the auditor's accounts?

A. Yes, sir.

Q. Do those waybills show the tonnage?

A. Yes, sir, the waybill would not be a regular waybill without that.

Q. Are the waybills used in the auditor's office as a basis for keeping account of tonnage, the statistical amount of tonnage?

A. My understanding is, and from Mr. Roth's statement in this matter, that primarily the waybill is the basis of tonnage figures.

Q. And does it show the tonnage of trains on which the billing was issued?

A. No, sir, it shows the weight of the individual shipment, covered by the wavbill.

Q. Perhaps I asked my question in the wrong way; what I wanted to know was, was there accounts of the tonnage of trains made up from the waybills?

A. My understanding is that is not a matter of compila-3649 tion by the auditor; my understanding is that the information which is compiled in the office of the car accountant, is compiled from the wheel report; that is, they get the gross ton miles in that way.

Q. And in like manner, you went to the billing frequently I suppose, to get an account of the freight hauled in these local

trains?

A. Yes, sir, we went to the billing.

Q. Did you confine yourself to the billing for that month?

A. No, sir, we confined ourselves to the waybills covering the cars that were in the trains; some were September waybills.

Q. The waybill doesn't show the train the freight goes on, does The auditor's copy of the billing doesn't, does it?

- A. No, sir.
- Q. You deem it necessary, in order to get the weight of the contents of the cars, to go beyond the wheel report and to trace it up,somewhere I believe you said you did, and explained how you did it in your examination in chief?

A. Yes, sir.

Q. Of course, in doing that, whatever you did was confined to local trains?

A. Yes, sir. Q. You didn't take up the through trains?

A. No, sir.

- 3650 Q. And you wouldn't have any information as to the tonnage that was carried on through trains from the scaling of them?
- A. No, sir, we compiled no information for the through trains. Q. The local trains, the trains that run as a rule within the limits of the state,-through trains as a general rule, I think, come from outside of the state?

A. Not necessarily.

Q. Not necessarily, but I am speaking of the general rule, that is the general case, isn't it?

A. The Iron Mountain has local trains on its Memphis branch,

that run over into Tennessee.

Q. Yes, sir, they treat that as a local train?
A. Yes, sir; on its main line, running north from Hoxie, into Missouri,—Poplar Bluff.

Q. Give me the terminal points?

A. Hoxie and Poplar Bluff, as I recall; it may run to Piedmont; out of Van Buren, local trains run up to Wagoner; from McGehee, one runs south into Louisiana to Monroe, and from McGehee south into Louisiana to Lake Providence; when you get down close to the border divisions, locals pay no attention to the state line.

Q. Those, you say, are treated as local trains, and were they

treated as local trains by you?

A. Yes, sir, necessarily so, because they were local trains for the mileage which they travelled in Arkansas.

3651 Q. You described in your examination in chief, the process of getting the scale weights?

A. Yes, sir.

Q. What you said about that, is confined to local trains?

A. Yes, sir, and to their performance in the state of Arkansas,

when they cross the state line.

Q. Suppose that freight was brought into Arkansas on a through train, interstate freight operating into Arkansas on a through train; in such a case as that, would those cars be scaled at the first place where there was a scale, after it started out from the initial point of the trip?

A. That, I think, is the usual practice.

Q. That, in all probability, would be some point in the State of Missouri?

A. Yes, sir, it may have been in Missouri or Kansas.

Q. Freight that is brought in on a through train as distinguished from a local train, you did not trace back for the purpose of getting the scale weight?

A. Not unless it got on a local train in Arkansas, when we be-

came interested in them and ran them down.

Q. What effect did that have on the correctness of your weights as to trans-state freight and interstate freight that happened to go into the state on a through train, instead of a local train, and which was scaled in Missouri?

A. If they moved on a local train inside of the state, we got them.

3652 Q. Suppose it did not do that; suppose they moved on a local train inside of the state, but they were not sealed inside of the state and came into the state on a through train, how would you get at the correct weight?

A. It would not make any difference to us where they were scaled

as long as they were scaled.

Q. You went to the scaling for the purpose of verifying the weights on the wheel reports?

A. No, sir.

Q. For the purpose of getting the correct weights?

A. Yes, sir, and to locate the billing that covered the cars. Q. You said you traced those scalings in one direction or the other

direction, but that was all on local trains?

A. Yes, sir. Q. May there not have been a case, in which goods handled on local trains, were brought into the state on through trains, and for

which you were not doing any tracing?

A. Yes, sir, I see your point now; I guess you misunderstood my explanation; it did not make a bit of difference to us where that car came into the state, where it was going, or anything about it, until it got into a local train; how it reached that local and became a part of it, was of little interest to us. The fact that it was scaled before it reached the local, or that it came to the local in a through

train, had nothing to do with it; if it was scaled, it was re-3653 ported to the auditor regardless of the service it got before it got to the local train, and that was all we were interested

Q. You didn't trace it and get to any record, for the purpose of tracing it up the line of the direction of the through train as you

described yesterday?

A. I did not intend to say that, if I did; what I mean was, if we did not find it weighed at the first track scale that the local hauled it over, we went back to the next track scale in the direction which the car was coming; we did not know whether it passed that other scale in a through train or local train.

Q. Suppose it did not pass a track scale or was not scaled in the

state of Arkansas on a local track.

A. It might have been scaled in Kansas, Missouri, Nebraska or

Colorado.

Q. What I am trying to ascertain was, what you did in that case of that class of freight, trans-state and interstate, which was hauled

in on through trains?

A. Assume we had a car moving in a local train from Hoxie to Newport on the main line, and we did not find that car was weighed on the scales at Hoxie; it was going south; the supposition was, in most cases, it was moving steadily in one direction; we tried Poplar Bluff scale, the next scale north; if we didn't find it there, we proceeded on up; I haven't the exact scale locations here now; let's as-

sume there was none between Poplar Bluff and De Soto, we tried De Soto, and then we tried the St. Louis scale, and in 3654

that way, we, in most cases, located our car.

Q. You don't mean there was a local through from Hoxie to

De Soto or St. Louis, do you?

A. No, sir, but if the car came over Iron Mountain rails from St. Louis to Hoxie, it certainly had a chance to be weighed at any scale between St. Louis and Hoxie.

Q. You mean, to that extent, you investigated the records of

through trains?

A. No, sir, I didn't care what kind of train it was in; I investigated the scale records, looked at the records of scales it moved over.

Q. Going to the matter you mentioned a moment ago, in order to ascertain the tonnage of the L. C. L. cars, you say you got the total figure and multiplied it by 4?

A. The total car mileage figure, multiplied by 4. Q. In order to get the ton miles?

A. Yes, sir.

Q. And you say you based that on the exhibits 19 and 20, filed by the Cotton Belt railroad in this case?

A. Yes. sir.

Mr. HILL: He said he deduced that from the statistics there

Mr. Moore: I said he took that as the basis because exhibits 19 and 20 showed that.

A. I said, we figured from the basic figures given in Mr. 3655 Kimbell's exhibits and that result was obtained; that figure appears nowhere in his exhibits.

Q. I understand that is what you say here; it was the result of calculations based on that exhibit?

A. Yes, sir. Q. That is what I understood all the time; I don't understand that you took it bodily out of the exhibits. Do you think that it is fair and right, and that you could properly apply a condition of that kind on the Cotton Belt road, where the average haul is 40 miles, to the Iron Mountain Railroad, where the average haul is 72 miles?

A. I don't see the connection.

Q. It seems to me there is a good deal of connection.

A. I think I said in my examination in chief, that I was of the opinion-it is a matter of opinion pure and simple-that the average loading would be heavier on the Iron Mountain, owing to a greater density of traffic; aside from that, I did not express any opinion.

Q. Yet you applied the rule, based on calculations in the Cotton Belt exhibit, to the Iron Mountain, notwithstanding, in your

opinion, it would not have been proper to do it.

A. I didn't say that.

Q. You said it was your opinion there would be a heavier ton-

nage and yet you apply that rule to it?

3656 A. I gave you my opinion on the subject; we used the figure four as a result of a consultation between Mr. Wharton and myself, and when we finally decided on its use, we thought that we were stating for the Iron Mountain the minimum, in making use of the figure so arrived at; we put all the ton miles state L. C. L. shown in Mr. Roth's exhibit, on the local train. Now, any increase of that figure 4 will simply result in putting more interstate L. C. L. ton miles on the local train; any reduction of it, would take some

Q. That is all very true; we will assume that is all true; the point I want to call your attention to, is whether that is a correct basis upon which to ascertain the loading of those cars in ton miles?

A. The only way in which the actual figures can be obtained is

to ride the trains, as was done in the case of the Cotton Belt.

Q. Mr. Ludlam testified in the Missouri rate cases, didn't he, that an estimated figure such as you have stated you made in the C. B. & Q. case, was of very little value, that the only way reliable information could be obtained, upon which a statement could be based,a correct statement could be based, was to do it at the time, and as you say to ride the trains, didn't Mr. Ludlam state that?

Mr. HILL: We want to object to that; Mr. Moore has ob-3657 jected time and again to stating testimony in other cases.

The MASTER: The record shows what Mr. Ludlam testified.

Mr. Moore: I am calling attention to Mr. Ludlam's testimony in the Missouri case; he is the head of Haskins & Sells, and if the testimony of Mr. J. M. Johnson, taken down in Arkansas in another case is competent, this certainly would be.

Q. Didn't he make that statement?

Mr. HILL: I object to the question; Mr. Johnson's testimony that

I sought to introduce over your objection, was proved to be correct in a measure and in a measure incorrect, by the others; that is all I am asking; you are trying to prove what Mr. Ludlam testified; there is a record to prove that.

By the MASTER: I do not think that is a correct question.

3658 Q. Mr. Hamilton, you know what Exhibit 14-a and Exhibit 15 in the Missouri Pacific Case was, do you not?

A. I do not believe I am familiar with them by number.

Q. It is the total tonnage of state and interstate freight, W. C. Fisher's exhibit.

A. I would like to say that I was not present at a great many of

the Missouri hearings. I was up in Chicago at that time.

Q. Well, never mind that.

Mr. Ludlam testified on the stand in this case that those were the exhibits showing the state and interstate freight on the Missouri Pacific Railroad, and he also testified that his information was that that data upon which those exhibits were based was obtained by men who went along with the trains.

He further stated that he testified in that case that it was not practicable to get that information accurately as to what makes up the tonnage of particular trains, whether they be local trains or

through trains.

Then he testified that he stated further in that case that it was impracticable to ascertain that information from the books and records of the Company subsequent to the operation of the trains and the handling of them:

If he is correct in those statements, is the information obtained by you in the manner you described, as distinguished from the method adopted by Mr. Kimbell, the results which have been obtained in exhibits 19 and 20, correct and reliable data upon

which to act?

A. I would say in answer to that, Mr. Moore, that while I did not hear Mr. Ludlam's testimony and am not familiar with the exhibits you refer to, that what Mr. Ludlam had in mind—at least it appeals to me that what he had in mind was the classification of

less than carload business.

It is inconceivable how anybody understanding the method in which freight is handled under way-bills and what becomes of those way-bills after the freight is handled, and what a detail record of handling of the freight they must necessarily be, that anyone knowing that, and undoubtedly Mr. Ludlam did, would say that information of this character as to carload business could not be ascertained at any time during the life of the way-bill under which the car moved. The location of the way-bills for less than carload business is open to the objection that I have made to it in my testimoney here.

Q. Now, going back to the Cotton Belt statistics upon a calculation from which you based your four tons to the less than carload

car:

It is in evidence in this case that the cotton hauled to compress

points was less than carload business and was treated as interstate business: that is correct is it not?

A. I understand that it is in evidence in this case that cotton hauled to compress points was treated as interstate 3660 business.

Q. And that it was principally less than carload traffic?

Did not Mr. Bee so state?

A. I don't recall that he stated that.

Mr. Hill: If you want to read him any testimony, read it, but do not ask him-

Mr. MOORE:

Q. I want to ask you if, in view of the large cotton movement in the month of October, it would be fair to take the Cotton Belt statistics, or calculations based upon the Cotton Belt statistics for movements of freight in that month, as a test for the average loading of less than carload cars for a period of six months.

A. To pass an opinion on that I would first have to know operating conditions and first hand on the Cotton Belt and to know the relative volume of other commodities moving in the various months. I would not like to pass upon that without such information.

Q. You did pass an opinion on it when you used the figures of the October test as a basis to be applied to the six months' period. That is the very thing you did and that is what I am asking you now.

A. I think I explained fully, Mr. Moore, how that was arrived at.

That is comparing the two months, the same month in each year on
the two roads. I said that in my opinion it was a fair proposition
to apply a figure of four to the Iron Mountain because of the greater
density on the Iron Mountain——

Q. I sm not speaking of applying Cotton Belt statistics to the Iron Mountain, but to the Cotton Belt itself, and the

point I want to call your attention to is this:

If, on account of the very large movement of cotton in October, if that would not operate unfairly as between—to apply a deduction made from those figures and the test of Oct. 1907 to a period of six months.

A. I misunderstood your former question. I did not mean to——
Q. Well, now I have made myself plain, what do you say?

A. I will say that in doing that we read Mr. Kimbell's opinion as given in evidence here, that October, as far as the relative volume of state and interstate business was concerned, was a normal month. That is, while the total volume of state and interstate might fluctuate from month to month, the relative movement would be the same. At least, I so construed it, and when he said "interstate," of course he had in mind cotton traffic which is all interstate and that was our reason for applying those figures in that way.

Q. Did you understand Mr. Kimbell as saying, or intending to say, to apply that statement to the loading on less than carload cars?

A. No, sir; to state and interstate business.

Q. We are now talking about the correctness of the prin-3662 ciple upon which you have ascertained the average loading of less than carload cars, and you take October, the heaviest cotton month, perhaps, in the year-

Mr. HILL: Is there any evidence of that?

Mr. Moore: We don't need any evidence on that; we will assume

You take the calculations based on those figures: now, I ask you if anything in Mr. Kimbell's testimony was understood by you as

justifying that course?

A. I understood it to mean that the relative volume of state and interstate business was the same for one month as for any period-I think he said a period of years, in answer to Judge Hill's question.

He was talking of state and interstate business and the relation between the volume of the two. Now, as both state and interstate move interchangeably, carload and less than carload, in the same cars

and in the same trains, I think that applies.

Mr. Kimbell testified on page 91 of Volume 1 of the printed record, and Mr. Doddridge on page 156 of Volume 2 of the printed record—we used the light that these gentlemen gave us, because they were closer to the proposition-

Mr. HILL: Read what Mr. Doddridge says.

A. This is in answer to a question from Judge Hill:

3663 "Q. Mr. Doddridge, I will ask you, from your experience, what would you say was the average loading of the less than carload package freight car?

A. The load of less than carload freight varies greatly-

Q. I am talking about Arkansas?

A. I have no statistics as to Arkansas, but in my judgment, it probably would not run over three or four tons.

Q. What average loading is maintained in such a car, in a day's

run, over a local freight train?

A. Well, in a local freight train that is peddling it out; it simply

decreases until it is resolved to nothing."

We also had in mind Mr. McPherson's statement as to the average loading of these package freight cars which ran from-

Mr. MOORE:

Q. From two to five.

A. -two to five, I have not looked it up Mr. Moore.

Q. That is my recollecton of it, two to five.

In your quotation from Mr. Doddridge's testimony he states the opinion that the average loading of a less than carload car would not run over three or four tons.

A. I think he says from three to four. Q. He says exactly what I stated there. A. Yes, sir; that was my recollection of it.

Q. Now, if that is true, would October not swell the loading above

the average for a year, for a period of six months on account of the movement of cotton that month?

A. It might, yes, sir, but I fail to see how that would affect our use of that figure materially because we have al-3664 ready loaded on to the local train all of the state less than carload business shown in Mr. Roth's exhibit, put all the state business on which is developed to be the most expensive train. change in the total ton mile figure which we put on local trains and from which we deduct the total state to get at the interstate on local trains, would simply affect the interstate figures. If that loading of four tons is too low, then we will have to put some more interstate less than carload in the local train. If it is too high, we will have to put some more of it on the through trains.

Q. You also said in your examination in chief that you thought when you took all the state less than carload ton miles from local

trains you worked an injustice to the state business:

You were asked what information you based that on and you stated that it was practical to haul-you gave as a reason for that view it was practical to haul state freight in Arkansas a maximum of 305 miles.

Now, Mr. Hamilton, I want to ask you if it is usual to haul state

freight in Arkansas 305 miles?

A. That I cannot say, sir. Q. Do you not know from your examination of the testimony in this case that a haul of 305 miles on state freight in Arkansas would be exceptional?

A. I stated that was a miximum, Mr. Moore. Q. Perhaps you did state that. Now, is it fair to take 3665 the highest maximum haul that is practicable or possible in the state of Arkansas and base a statement such as you made upon that possibility?

A. I think my statement was that as that haul was practicable that freight moving that distance would move at least a portion of its journey in the through train. That is what I was illustrating. The average haul of all state freight shown by Exhibit 26-

 Q. We know what it is—72 miles.
 A. Yes. The average haul of all less than carload state freight is shown as a trifle over 57 miles. Of course, that is the average. It takes in all the short haul stuff and all the longer haul stuff and I should say that there is a good deal of long haul stuff in thereperhaps a good deal short of 300 miles, but there are many local freight trains run in Arkansas way below 100 miles, and it would be economical railroading and good railroading, wherever a shipment could traverse a through freight division in a through train to let it travel that way and do its peddling at either end or both ends in I gave as an illustration a shipment from McGehee to Van Buren, 102 miles from McGehee to Little Rock and 150 odd miles further to Van Buren.

While I could conceive that such a shipment might be 3666 hauled in the local from McGehee to Pine Bluff, and perhaps again in a local from Pine Bluff to Little Rock, I do not believe that the agent at Little Rock would allow it to go up the Ft. Smith

division in a local.

Take a shipment from Texarkana to Newport, or from Newport to Texarkana; take a northbound shipment; that could have moved in October, 1907, in a local to Arkadelphia. It might move in a second local from Arkadelphia to Little Rock, but I feel pretty sure

it would go out of there in a through train.

Take a shipment from El Dorado out on the end of the Camden Branch, as it is called, to say, Pine Bluff—if the Iron Mountain got the shipment—it would move in a local, perhaps, to Gurdon, but while it might go in a local from Gurdon to Little Rock, I think again at the transfer platform in Little Rock it would go in a through train—I do not suppose a great deal of freight moves the maximum of—

Q. I just want to ask you one question about that: I want you to give me your views from your knowledge of the statistics and the records in this case, as to whether such a haul and such movements as you have described are usual or would they be exceptional?

A. Not having analyzed the contents of a less than carload car, I could not answer that question, but it seems to me reasonable that such movements would be made and if they are economi-

3667 cally handled by the railroad, they would be handled in the manner in which I have stated, getting a partial haul in the through train.

Q. I did not ask you if you thought it reasonable that such movements as you gave might occur: I asked you this:

Assuming that such movements might occur and did occur, are they not exceptional?

A. I don't know that it is exceptional. I could not say without

analyzing the situation.

Q. Do you think that there is a very large volume of traffic moving between McGehee and Van Buren?

A. I don't know that there is.

Q. I just ask you, speaking of those two stations, if you are able to form a judgment and state whether that would be customary or exceptional?

A. I simply gave those illustrations as those on which I based

my opinion.

If you care to have it done, I will be glad to examine the company's way-bills and see if those movements—

Q. I will not ask you to do that.

Your stated in your first examination in this case, referring to the work embodied in the exhibits, that having ascertained the train engine, freight car and caboose miles of the local in each train, you deducted that figure from the total figures of like character in the

company's statistics, referring, I suppose, to Exhibit 26?

A. No, sir, that was the ton mile proposition, Exhibit 26.

The train mile figures

Q. I see the distinction, from the statistics compiled by you. Now, those statistics were the total statistics without distinction between the tonnage carried on local and through trains; that is what you refer to?

A. I think you are confusing two things. Those figures would

not have any tonnage in them.

Q. Well, tell me just what you refer to: you say, that having ascertained these elements that I recited a moment ago you deducted them from the totals of figures of like character and the company's statistics. I think that is plain enough. What I want to ask you is this:

If any incorrectness or errors should, by chance have crept into your results and the figures that you made when you attempted to fix the relative quantities-I will call it that for the want of term just now-by the process described, your results were defective and

erroneous both ways?

That is to say, your showing of the similar elements on the through train would be affected just as much as the showing on local trains?

A. Necessarily so; to whatever extent that error existed on the

through train it would on the other.

Q. In other words, the error would multiply itself in that way?

3669 A. It would be reflected on both sides.

Q. Mr. Hamilton, do you think there is any distinction between the intermediate terminal expenses and the same character of expense at originating and destinating points of freight hauled?

A. Do you mean as applied to the freight or as comparing ter-

minal with terminal?

Q. As applied to the freight.

Yes, there would be some, undoubtedly.

Q. What would be the difference, in favor or against?

A. An intermediate terminal, by which I take it you mean a terminal-

Q. What I want to know is, which would involve the greater expense, the terminal or the intermediate-

A. That is what I started to answer, but I want to give my reason

first.

Q. Then I want to apply it in another way. I spoke of freight. I will include also the movement of trains handling cars at intermediate terminals and at the termini of the train run.

A. That involves two propositions. When you speak of the handling of freight in a terminal sense it means one thing with less than

carload and another thing with carload.

When you speak of handling of trains, it means the handling of cars in the trains.

3670

Q. Take the freight first.

A. The first distinction between the handling of carload and less than carload, the handling of less than carload originating at or terminating at intermediate terminals, would be practically the same as at the destinating or originating terminal. But in that case that I referred to the intermediate terminal would be the origin or destination of the freight,

In the case of freight moving from one small center which would be its originating terminal, to another small point which would be its destinating terminal, through a large intermediate terminal, that freight would undoubtedly get just as much handling at that intermediate terminal as it had at either end, for the reason that it would go into that terminal, possibly, in the way car and be unloaded and reloaded in another way car to go out on the line beyond.

Q. Describe what would be done at intermediate terminals be-

tween division points-

A. The handling would be the same at both ends; there would

be no material difference.

Q. I want you to compare now the expense at the intermediate terminal with the expense at the originating and destinating points—

A. That was what I was aiming to do.

Q. —in cases where the freight does not pass an important terminal in going from one place to another, but where it is between important terminals.

A. Where both its originating and destinating points are between

the important terminals?

Q. Yes.

A. It would get a handling at both ends, loading at one end and unloading at the other, provided it would not have to be transferred. If the point to which it was destined was not the termini of a local freight run, it would get just those two handlings—

Q. What do you mean by "terminal"? I want to see if we are going at cross purposes. What do you include in the terminal ex-

penses?

A. It depends, in the first place, on what you call a "terminal."

In the ordinary acceptance of the term, the terminal-

Q. I mean the sense in which you used it in your exhibit in this case?

A. We used it in a great many senses. If you refer to the par-

ticular use I will be glad to define it.

Q. I will call your attention to that part of your testimony that I want explained in connection with the questions I have asked you, which, perhaps, I have not formulated in a happy way to get the information I wanted to get.

You say:

3672 "We took the reports for the entire month of all through and local trains running into and out of a given terminal."

A. Yes, sir.

Q. "Or passing through them": that is what I have in mind

"And at the time we found a car set out at an intermediate terminal by a through train we charged that as a terminal handling—whenever we found a car set out by a local—etc."

You are recognizing, as I understand it, two classes of terminal services—terminal services at the intermediate terminals and at

the originating and destinating terminals of the train?

3673

A. Yes, sir.

Q. What I want to inquire of you, Mr. Hamilton, is this: which involves the greater expense, the intermediate terminal handling or the terminal handling at the point of origin or destination?

A. Without having before me the expense of operation of each of these terminals where a switch engine was kept, in connection with the number of cars using the terminal, I would not be able to form any comparison. If I knew the expense of a terminal for a given period I could make a comparison.

Q. Do you make any allowance for the difference in the expense of intermediate and other classes of terminals in the formula which

you applied in this case?

A. Perhaps, Mr. Moore, if I make a little explanation of

my testimony right there, it will be more clear.

Mr. McPherson, or his office, to be more accurate, furnished us with a list of the stations in Arkansas at which switch engines were maintained during October, 1907, the month we had under examination.

Those engines were kept there—aside from their industrial switching—for the purpose of handling cars left there by trains and handling cars to be taken away from those stations by trains.

Now, between Argenta and Texarkana, the termini of a through freight run, I found a switch engine kept at Hope. That engine was there to take care of any cars set out at Hope by a through or a local train, or it prepared for movement any cars to be picked up there by either class of trains, and we have taken a number of cars handled at each terminal as indicative of the use made of that terminal by through and local trains; that is, the number of cars handled for each class of train.

In order to compare the expense of handling those cars, I would first have to know the expense of the Hope terminal, per car, and then set it up against Texarkana or Argenta or these other points

to make a comparison.

The engine was there and the cost or expense per car unit of handling would depend upon the use made of the service.

3674 Q. What did you do about it? Did you make any allowance for any increased expense at the termini over the intermediate?

A. I spoke of "intermediate" in the sense that in that case Hope

Q. The question is did you make any allowance?

A. No, sir; we took all the cars handled at all the terminals.

Mr. HILL:

Q. You mean terminals where there are switching engines?

A. Yes, sir. We had to do that, necessarily, unless we had separate expenses for each terminal and could pro rate it separately between local and through trains on the basis of the use made of that service at that time.

You will recall, further, that in asking for that information as to the Ft. Smith terminal we were told that it was in the central

division expense accounts and that it was not now obtainable. I think Mr. Johnson made that statement. So we were compelled to lump, not only the expense of terminals but the use made of them to divide that expense.

Q. You spoke this morning about a back-haul in some 3675

connection:

If I remember, Mr. Bee testified as to the practice of railroads in carrying freight to division points and then back-hauling. He stated that less than carload freight—we will say from Little Rock on the Iron Mountain-would be carried to Little Rock on a local train and shipped up the line, what he called a "back-haul," thirty or forty miles:

Is that the practice?

A. I don't know, Mr. Moore, as to the Iron Mountain in Arkansas, because we did not go into the less than carload cars to know what their contents were, but there might be occasional for

I think that would occur in some cases. I don't know just how the Iron Mountain loads its merchandise and where its transfer platforms are, but I can conceive where that might be done and

it might be good railroading to do it.

For instance, St. Louis might have freight for the first, third or fourth stations north of Little Rock, on a given date and not enough to make a full car to break bulk at the most northerly station of the three or four; sooner than load that in a car for, say, Newport, to be reworked, they might load it in

a Little Rock car to be reworked and come back.

I know the Frisco does that very largely at some of its transfer platforms, at least I am so informed by their superintendent of transportation. But not having gone into the contents of the cars on the Iron Mountain in Arkansas, as I stated, I don't know.

Q. Mr. Bee also stated that that would be done with reference to

the carload as well as less than carload?

A. I don't see the necessity of that.

Q. Where would that freight appear in the statements prepared by you, that back-haul?

A. Carload or less than carload?

Q. Either way.

A. The carload would appear in the trains that handled it both wavs.

Q. In the train that handled it both ways?

A. Yes, in the trains that handled it in both directions.

Q. Will you please explain that?

A. Say a car was going from Newport to a point north of Little Rock. For some reason that was carried into Little Rock and then carried back. We would have a record of it on each train. I do not recall any of that. I don't think that carload business

would be back-hauled. I don't see the necessity for it.

Q. How would it be on the less than carload?

A. I can't answer that, sir.

Q. Where would it appear in your figures?

A. We would have the car miles of the car that took it in one direction and the car miles of the car that took it in the opposite direction and would multiply that by four, as we did others.

Q. In other words, you would have the cars to Little Rock and

on the back-haul from Little Rock to-

A. Yes, any back-haul. If it moved in a local train we would have each.

Q. And that would be multiplied by four?
A. Yes, the average loading.

Whether there was any back haul stuff on the carload business, I don't recall, and I don't know as to the less than carload because we did not analyze the contents of those cars.

Q. But to the extent that there was a back-haul it would appear

that way in your accounts?

A. Yes, sir, if there were any, it undoubtedly would.

Q. How would that appear on the record of the Railroad Company?

A. I assume you refer to Mr. Roth's figures? Q. Yes.

A. Mr. Roth would take into his figures the haul indicated by the heading of the way-bill, as I understand.

Q. That would be from St. Louis to the station north of Little Rock, whatever that station would be?

A. Yes, sir.

Q. We will say Beebe: Mr. Roth's figures were taken into that station?

A. Yes, sir.

I don't believe that in the ordinary conduct of the business of the road a carload of freight would be back-hauled. I don't see the necessity for it. The only excuse would be in the case of a car of perishable stuff or a desire not to stop a car at intermediate stations, and I don't think they make any time by back-hauling-

Q. Now, Mr. Hamilton, were the figures which are the bases of the exhibits filed by Mr. Wharton, compiled with accuracy by you or those who were working under your direction, do you think?

A. The men who assisted in the compilation of them were competent and thoroughly understood their instructions. The plan outlined for their compilation was a good one, in my judgment. To the best of my belief those figures are accurate, yes, sir.

Q. I suppose its value depends upon its correctness?

A. Its value would depend upon the correctness of the percentages which were derived from those figures, because the percentages themselves are what are used in our various calculations.

I am speaking now of the figures on Exhibit "I." whether those percentages are right or wrong depends upon the correctness of the figures upon which they are based?

A. Necessarily so, except when you are dealing with totals, where large differences are necessary to affect the percentages, which, of course, are expressed in parts of one hundred.

Q. Who are the parties who assisted you in making up those

figures?

A. Mr. Wright and Mr. Dutlinger, practically all of the time; Mr. O'Conner, and Mr. Hetzel and Mr. Reichardt, who did simply clerical work, such as copying, additions, and did none of the classifying of the ton mileage.

The gentlemen I have mentioned were employed by the Arkansas

Railroad Commission, working under my supervision.

In addition to that, at various times when we could use a man for a few days, we had the assistance of some of the members of Haskins & Sells' staff. Mr. Gilliam, of our St. Louis office; Messrs, Porter and Webster of our Chicago office; Mr. Senft, of our St. Louis office.

The bulk of the work, however, was done by Mr. Wright, Mr. Dut-

linger and myself.

3681

Q. Were your figures, at any time, shown to the accountants of the railroad company and was any revision made by you and your men on account of errors that were pointed out?

3680 A. The principal revision which was made in our figures was due to the fact that after we had gotten most of them together, we found that either Mr. Roth had been mistaken or we had misunderstood him as to the basis on which he had figured the mileage in his Exhibit 26.

A great many of the distances which our cars were hauled, were fractional distances. That is, the distance would terminate in a fraction of a mile and we understood that in making his figures Mr.

Roth had dropped fractions of 1/2 mile and under.

It developed later, when our figures were practically completed, that Mr. Roth had picked a half mile up, and over. That necessitated a revision of our figures, our car mile and mileage figures.

We found some minor errors in our figures, principally errors in footing car mileage, in making that revision. Those were the only differences that our attention was called to.

Q. Did you make corrections of all those figures, Mr. Hamilton?

A. Yes, sir, I had the figures gone over by my assistant.

Q. I hand you one of your work sheets and call your attention to what is contained in the column "miles hauled" opposite car number 82,962 P. R. R.

Also car 3972, with the initials of the Cotton Belt, St.

L. & S. W., and car 64,413, B. & O.

I wish you would examine that and state what appears upon it in regard to the miles hauled and any corrections that may have been made by you in regard to that; state what the corrections indicated by Mr. Roth were, or by whoever represented the railroad.

A. (After examining paper.) I find that the mileage shown opposite those cars is 41 miles each. Those are the figure-placed

on there by one of my assistants.

The information given on the abstract sheet indicates that those three cars were hauled from Station No. 997, which is Harrisburg, Arkansas, to Station 987, which is Paragould, Arkansas.

The mileage between those two points, indicated by the official

Station List, is 37.46 miles.

When the mileage of 41 was placed against those three cars, in

the first instance, it was an error of four miles for each car or a total of 12 car miles.

I find that on revising our figures, as I explained a few moments ago—which revision was first necessitated by a misunderstanding between Mr. Roth and ourselves—that we have revised those figures to read "37" miles, which is the exact distance shown by the station list, between the two stations, correcting that original error of four miles per car for the three cars.

3682 I find that opposite our station number "997" on the sheet, somebody has noted station No. "987," indicating that the car was taken there, and showing delivery point at station

786, whereas we have it from Harrisburg to Paragould.

The mileage of 37 miles as latterly placed by us, is correct for

the haul which we show.

Whether the cars were actually hauled from Paragould to Knobel, as indicated by this second correction (which was not made) I can only say by reference to the wheel report. If that second correction is correct, the correct mileage would be 21 miles.

Q. Have you the wheel report there?

A. No, sir, the wheel report is part of the Company's permanent record and is in their possession.

Q. Now, Mr. Hamilton, would that four miles difference be ac-

counted for by the fraction you spoke of a while ago?

A. No, sir, the four miles was a revision which we made. We corrected the four mile item at the time we revised our other figures.

Q. You explained a while ago that you had fallen into some errors by reason of a misunderstanding or mistake in the representation made to you by Mr. Roth as to the manner in which he used fractions, which amounted to—

A. It would make a mile each way-

Q. —that was the way you made the errors?

A. No, sir, that was what started us to revising the miles 3683 on these sheets.

Q. That does not explain that difference, does it?

A. I said before, in doing that we found some other differences

which we attempted to adjust as we went along.

Q. Do you know if the mileage used by you in making up your ton miles is the same that was used by the Railroad Company in making up Exhibit 26?

A. I understand so, yes, sir. We were informed they took the mileage on the Official Station List of the Company and that is

what we aimed to use.

- Q. Please explain what figures you used in ascertaining the mileage?
 - A. We took that out of the Company's Official Station List.
 - Q. And applied the information you got from the wheel reports?
 A. Yes, sir.

Q. You do not know where the Railroad Company obtained the figures, the basis of the ton mileage represented in Exhibit 26?

A. I am informed by Mr. Roth that he used the station list mileage, which is the basis we used. Mr. Roth had given me a

memorandum of the method on which he had compiled Exhibit 26 and the basis used, when our work was about completed.

Prior to that time we had just discussed the matter verbally,

which served our purpose as well.

3684 I notice here under the head of "Mileage" he does not state the source from which he got the mileage, but I recall distinctly that he told me it was taken from the Official Station List. I don't see where else he got it from.

Q. Were there a large number of errors corrected by you in the manner you spoke of a while ago, that had been pointed out by the

railroad accountants?

3685

A. There were quite a few in the mileage adjusted, yes, sir.
Whether you would consider them large in view of the size of the
statement would be a matter of opinion, but there were quite a few.

I recall one instance where on comparison of the mileage used by the Transportation Department and that in the Official Station List, we were shown a wire from the Division Superintendent to the effect that the mileage on the White River Division was a mile out of line, I don't know whether it was too much or too short in the station list, but that impressed on my mind the fact that the railroad company did make the station list the basis of its mileage.

Q. Were you able to locate all of the cars?

A. There were some unlocated. I endeavored to have Mr. Dutlinger, who is still assisting me, make an actual count Saturday, but he told me these sheets were in use, and again today—until he gets the sheets I cannot say how many.

It just occurs to me, Mr. Moore, that I left a point un-

covered in my last answer:

Reverting back to this car mile revision: I recall that the differences we located were both ways, up and down, and that the net

change in our figures was negligible.

Of course, when you consider the revision of a statement of that kind, its accuracy, you must consider all sides of it, because the figures used in our exhibits are the percentages derived from those figures. The mistake which would offset another one, of course, would nullify it,

Q. I hand you one of your work sheets and I want to call your attention to car I. C. 42,282, which is shown to have moved on Oc-

tober 1st, on train 295, from Wynne to Bald Knob:

Will you take the sheet and state what the contents of that car was?

A. (After examining sheet) The sheet does not describe the contents of the car. Was that your question?

Q. Yes, give the pounds and the classification of the freight? A. It is classified as "trans-state", 56,000 pounds, and I would infer that the final destination shown on the wheel report was Lyndon, Kansas.

Q. Now, take the same car which was hauled on October 2nd,

from Baring Cross to Newport?

A. That is not on this sheet. It would be on another 3686 division.

Q. On October 2nd-

A. That appears as the last car in train 92, moving from Baring Cross to Newport. The classification shown is the same. weight is shown as 44,800 pounds.

Q. There is a difference in the weight, is there not?

A. Yes-that would amount-if the weight shown on the first train of 56,000 pounds were correct—to a shortage in the trans-state weight on the other train of about 150 ton miles.

Q. How would it be the other way if the second was right and

the first wrong?

A. That would amount to an excess of the trans-state ton miles on the first mentioned train of about 450 ton miles.

Q. Now, take the same car from Newport to Cushman, on October

3rd?

A. It is a trans-state car moving one day on each local train. I find that the weight of 56,000 pounds shown on the first wheel report which we discussed is shown on that. It is classified also as "trans-state" in each of the three instances.

Q. That is a difference of what?
A. The same difference as existed between the first two cars. It is identically the same weight as shown on the first movement.

Q. Do you know what the correct weight is?
A. I assume, without second reference to the billing, that certainly two weights of one car and one movement cannot be correct. Which is right, I would have to refer to the billing to determine.

Q. I understand neither one is correct; it is 62,000 thousand

pounds?

A. That would necessitate my examination of the Company's records again.

Q. Now take car C. & O. 6855. A. Is it a similar movement?

Q. Yes, a similar movement.

A. It is from Bridge Junction to Bald Knob, according to this abstract sheet.

Q. Assume that was from Bridge Junction-

A. My record shows Bridge Junction. Q. —what is the weight on that car?

A. The weight is shown "trans-state, 76,000 lbs."

Q. Take the next movement made on the 2nd of October: what is that movement?

A. I assume you mean from Bald Knob to Newport?

Q. Yes—Baring Cross.

A. I find that car classified as "trans-state, 42,000 lbs." Q. That is a difference of 34,000 pounds, is it not? A. Yes, sir. 3688

Q. That is to the destination of it, I suppose?

A. Yes, sir.

Q. What destination does your record there show?

A. My first record of the car, the conductor has reported it as a

car for Linwood, Kansas. I recall there was a heavy tie movement

out there at that time for the Union Pacific Railroad.

The second wheel report from Baring Cross to Newport, the train in which the car was hauled from Bald Knob shows the destination is Kansas City, which is entirely consistent, as the car would route through Kansas City.

Q. Now take C. C. 4143 of the same date, the same train and give

the weight of that car on the first movement?

A. From Bridge Junction to Bald Knob, in train 295-

Q. What is the weight and classification? A. That is classified as "trans-state freight, 63,700 pounds."

Q. Now, take the next movement from Bald Knob to Newport and give the weight and the classification?

A. It is classified as 54,200 pounds of interstate freight.

Q. What is the difference there?

A. 9500 pounds.

Q. There is a difference in the classification, too, is there not?

A. Not as we made use of the figures. 3689

Q. It is classified as "trans-state" in one instance and in the other as "interstate"?

A. You will find no "trans-state" figures on our Exhibit "I" or

in our percentages.

Q. You have furnished "trans-state" figures in evidence, have you I believe Mr. Wharton did?

A. Yes, sir, at your request.

Q. Take the next movement, now, on the October 7th, and see what that is? A. On the same train? the last I had was on the first, I think.

Q. No. 296.

Q. That is a train moving in the opposite direction, on the White River Division,-no, that is the White River train north of Newport. Here is a trans-state car that took five days between Newport and Batesville.

We revert there to the original figure shown on the first train,

63,700 pounds.

Q. Now, take car C. M. St. P. 80,800, and turn to train 295, October 1st and state the movement, and the weight and classification there?

A. The car is shown as moving from Bridge Junction to Bald

Knob, containing 68,700 pounds of trans-state freight.

Q. What is the next movement-train 92, October 2nd-what is

the weight and classification there?

A. It is classified again on that train, as "interstate" busi-3690 ness showing a weight of 40,000 pounds.

Q. A difference of 28,700 pounds?

A. Yes, sir.

A. Now, take N. Y. C. 26,361, on train 295, October 1st: what is

the movement there?

A. That moved from Bridge Junction to Bald Knob. The weight is shown as 68,700 pounds of trans-state freight.

Q. The next movement, on train 92, classified as trans-state?

A. 50,600 pounds.

Q. The difference there is 18100 pounds?

A. Yes, sir.

Q. Take C. I. & S. car 182405, in train 295, October 1st, and state where that moved, and the weight and classification of it?

A. It moved from Bridge Junction to Bald Knob and is shown as

containing 72,800 pounds of trans-state freight.

Q. Take the next movement, on train 92, October 2nd, from Bald

Knob to Newport: what is the weight there?

A. There seems to be a discrepancy there, Mr. Moore. I find this car on train 92 bears a similar number, but instead of being listed as "C. I. & S." it is listed as "C. & E. I." Which of the two is correct, or which wheel report is correct, I don't know without reference to it.

Q. Is it not probably the same car?

A. I would not assume that without seeing the wheel report. We show a weight of 42,600 pounds on it here.

Q. These cars are left together on the same train?
A. Not necessarily. If they did, they are—

Q. Does this not show the moving on successive days on the same train, first from Bridge Junction to Bald Knob and then from Bald Knob to Newport, on the second of October?

A. One train shows a C. I. & S. and the other a C. & E. I. I note that Mr. Wright has marked it on the side "no record." I don't

know what is referred to. Q. What is the weight?

A. The weight in the second train—that is the weight of the car marked C. & E. I. is 42,600 pounds.

Q. That is a difference of 30,200 pounds?

A. If it is intended to cover the same movement as the previous car.

Q. Take I. C. car 35,853; give the movement, the weight and classification on that, on the first day of October?

A. It moved in train 295, from Bridge Junction to Bald Knob and it is classified as "trans-state, 60,300 lbs."

Q. Now, give the movement on October 2nd, in train 92?

A. It is shown as moving from Bald Knob to Newport and is classified the same way, shown as 40,100 pounds.

Q. There is a difference of 20,200 pounds, is it not?

A. Yes—it comes to me, Mr. Moore—I don't know that it applies to these particular cars that we have discussed, but we found a great deal of billing for a movement of ties from points in Tennessee or Mississippi on the Illinois Central, through Monachis

found a great deal of billing for a movement of ties from points in Tennessee or Mississippi, on the Illinois Central, through Memphis, which had originally been billed at Memphis through to the Union Pacific Railroad, and the Auditor's record showed that the heading of those way-bills had been corrected to read to Kansas City—I believe for the reason that through billing was unauthorized, and I recall—and I think if the tissue book were brought up here it would bear me out—that a great many hand copies of way-bills were posted in the book for which there were already tissues copies in the book.

I notice that the lower weights on this train 92 are in my figures. Also that the other trains we have taken up on these same cars of ties are in Mr. Wright's figures. It is possible he got one copy of the way-bills, while I got the other.

However, an examination of the impression book will show that and bear out my statement that there were a good many duplicate

copies of billing for these cars in the Auditor's record.

Q. These are the weights, though, that you used in making up your ton miles on local trains?

A. From these sheets; yes.

Q. Take car I. M. S. 4753, October 1st, train 295, and see what you have in regard to the movement, weight and classification of that? 3693

A. I find that that car moved from Wynne to Bald Knob, destined to some point in Kansas-it is not quite decipherable, now,-it is said to contain interstate tonnage of 58,300 pounds.

Q. Take the same car on train 92, on October 2nd, and see what

you have there?

A. It does not appear on these sheets, on that train. It is not on that train on the second. It appears on that train on the third.

It shows a movement from Bald Knob to Newport for some Kansas destination and is said to contain 60,000 pounds of ties for the company's use.

Q. That is company material, is it not?

A. Yes, sir. Without examining the bill, I would not be able to say whether the car was a confiscated car of commercial ties or whether it had been erroneously classified.

Q. In one movement it is classified as "interstate" and on the

other, as "company material" on your working sheets there?

A. Yes, sir.

Q. Now, take Big Four, 20,719, on train 295; it is on the Memphis division, October 1st?

A. It is shown as moving from Wynne to Bald Knob, to a destination said to be Kansas City, interstate business, 38,000 pounds.

Q. Take the next movement of that on October 2nd, on 3694 train 92-may be it is the third-either the second or third? A. I find that classified as "interstate business, 60,000 pounds.

Q. A difference of 22,000 pounds?

A. 22,000 pounds.

Q. Now, take M. C. car 16987, train 295, on October 2nd, and state the number of tons on that car?

A. The car is shown as containing interstate freight, 60450

pounds.

Q. Take it up on the second or third of October on the next movement you find there?

A. I find that car on the third of the month on train 92, with a weight of 49,200 pounds.

Q. That is a difference of 11250 pounds, is it not?

A. Apparently, yes. Q. Take car M. K. & T. 15805, October 2nd, on train 295, and give me the movement of that with the weight.

A. The car was moved from Wynne to Bald Knob, containing 58800 pounds of interstate freight.

Q. Now, take it up on train 92, on October 3rd, and state the

movement and weight?

A. Interstate freight 45,600 pounds.

Q. That is a difference of 13,200 pounds, is it not?

A. Yes, sir. Q. Take it on train 296, October 7th. 3695

A. I find that is shown there as 50800, instead of 58,800; that would be an error in copying.

Q. Take car D. R. G. 10714: train number is 92 and the date is

October 3rd.

A. Where is that moving?

Q. From Baring Cross to Newport.

A. I find that car was moved from Argenta to Newport, the destination said to be Carthage, Missouri. It is classified as "interstate freight, 34,800 pounds."

Q. On October 6th, train 246, is the next movement shown here: see what the weight there is. This is from Newport to Cushman.

A. I find that car classified on that train is interstate freight, 37,900 pounds."

Q. That is a difference of 3100 pounds?

A. 3100 pounds.

Q. Take the same car on train 296 on October 7th, the next day. from Batesville to Cotter, and see what the weight there is?

A. The movement from Batesville to Cotter is shown to contain

"interstate freight, 48,600 pounds."

Q. That is 13,800 pounds more than is shown on the first movement, is it not?
A. Yes, 13,800 pounds.

Q. And it is 10,700 pounds more than is shown in the second movement, is it not?

3696 A. Yes, sir.

Q. Now, take car M. P. 30166, train 92, October 5th, from Baring Cross to Newport, and state the weight and classification of that.

A. It is said to have been hauled from Argenta to Newport, destined, according to the wheel report, to Hoxie, Arkansas; classified as state business, 69,200 pounds.

Q. On train 92, October 7th, you will find the same car: see what the classification and the weight is there?

A. That cannot be in the same train because it completed its journey so far as this train is concerned.

Q. It is the other end, is it not?

A. No, sir, the train runs from Newport to Argenta and from Argenta to Newport each day and they only-

Q. At any rate, the next movement of that car, what train is it on? A. I have it 92 from Newport to Hoxie, which is a different train on the same division.

There are two trains numbered 92 up there.

The car moved from Newport to Hoxie, but here the destination is shown as Cairo.

What is the date of the next movement you gave me?

Q. October 5th. What is the weight shown on this last one?

A. Just a minute, please, until I look that up. (Referring to The car went into Hoxie on the 5th and is shown on the paper.) 7th, two days later, as going back from Newport to Hoxie,

with a different destination. 3697

I have no assurance that that car was not made empty at Hoxie, sent back to Newport and reloaded in the 48 hours interven-The one conductor shows it destined to Hoxie and the other to Cairo. I will have to examine the wheel report and billing as we did to show it was two different movements.

Q. What was the weight of that car in the last movement, train

92, Newport to Hoxie and the classification?

A. Understand, Mr. Moore-

Q. I understand, you say it may or may not be the same loading, but I want to get your record.

A. That would necessitate an examination of the billing.

Q. I want to know what your record shows is the weight of that?

A. I will give you that in a moment.

The second weight, in which we show the car as destined, not to Hoxie but to Cairo, shows a weight of 61,200 pounds and is classified as interstate, which would be correct if its destination were Cairo.

Q. There is a difference there of 8,000 pounds?

A. There would be no difference where there is no comparison, and I don't know that it covers the same movement. We found lots of those cars in very active service.

Q. At any rate, between those two weights there is a dif-

3698 ference? A. Considering those figures in the abstract, yes, sir. Q. How do you treat it there? Do you treat it as one car in your

figures? A. No, sir, I have two movements of it, two different trains. Q. Mr. Hamilton, on the first movement shown here—from Baring Cross to Newport, is it not?

A. Yes, sir. Q. The date is October 5th?

A. Yes, sir.

Q. That would probably take that date, to get that from Baring Cross to Newport on a local train by daylight?

A. Possibly, yes, sir.

Q. You say that car was destined to Hoxie; when would that car reach Hoxie in the ordinary course of business, would you say, it being now, as shown here, its first movement from Baring Cross to Newport?

A. It could have reached Hoxie in very short order. The local freight train from Hoxie to Newport goes down and back in a day, but I suppose a through train would take it up there in a few hours.

I do not know the exact schedule time of through freight, but it is only a few hours difference between Newport and Hoxie. They are not very far apart. It could go up there on an ordinary through freight train in three hours.

3699 Q. You mean that would involve a second movement between Baring Cross and Hoxie?

A. It would mean that it moved from Newport on a through train that evening.

Q. It would get there that evening, it would have to be unloaded, would it not?

A. At Hoxie?

Q. Yes. A. No, sir.

Q. If you assume it is two different cars?

A. Yes.

Q. And then carry it back to Newport?

A. Yes, sir.

Q. And load it there for Cairo?

A. Yes. sir.

Q. Would it have been in accordance with the rules used in operating trains to have started that car out on a local train billing to Hoxie-from Baring Cross to Hoxie-and transfer it from that train to Newport on another train going to Hoxie?

A. It would have to transfer into another train upon arriving at Newport in a local, because that is the terminus of the local's run.

Q. But on the next movement you see the same car got to Hoxie on train No. 92?

A. Yes, with an interval of 48 hours.

The only way to tell that would be to find the way-bill 3700

Q. We will pass that; it is not worth while taking more time for it. A. We found a lot of cases of that kind where there were two very close movements of cars. I speak from memory-and that

might have been one of them. Q. Now, take car Big Four 20725, October, 7th, on train 92, from

Baring Cross to Newport:

I want you to show the weight of that car and its classification on

that date.

A. That car is shown as moving from Bald Knob to Newport. The conductor said its destination was St. Louis and we have classified it here as interstate business, 42,600 pounds.

Q. Did you go to the way-bill for your classification?

A. Yes, sir. I see nothing in what I have said to—Q. You said the conductor said on the wheel report—

A. I am just giving the information I have here.

Q. What is the next movement of that on October 12th, train 92? A. That fellow had five days at Newport.

It moved out of Newport classified at 42,300 pounds and this time in the trans-state.

Q. There is 300 pounds difference in the weight?

A. Yes, sir.

Q. Suppose that weight should have been 47,800 pounds: 3701 of course, you have nothing there to show it and neither have I, but that would have made quite a difference?

A. A difference of 5500 pounds, if that were the correct weight.

Q. Take car Q-43197, train 92 on Oct. 19. A. I find that car moved from Little Rock terminals,— 3702 from Baring Cross, to Newport, and that it was classified as 44.700 lbs. of state business.

Q. Turn to train 246 on October 20, next day, and see what you

find there about that car?

A. From Newport to Cushman on the 20th; it is shown now to be destined to Webb City, according to the conductor, and has interstate business of 45,800 lbs.

Q. So there is a difference of a few thousand pounds in weight, and difference in classification, transferred from state to interstate?

A. If it is the same movement, yes, sir; one movement, according to our memorandum here, is shown to be destined locally to Newport; the other, on the succeeding day shows the car destined to Webb City, Mo.

Q. Take car M. P. 62141, train 92, from Newport to Hoxie on Oct. 1st, what do you find there to be the weight and classification

of that car?

3703

A. That car is said, on this sheet, to be destined to Carthage; that is the conductor's information, and to have contained interstate freight 54,600 lbs.

Q. Now turn to train 294, Cotter to Crane, and see if you find

that same car there, and what its contents is?

A. Yes, sir, I find it on October 8th, train 294, seven days later, on the White River Division; there it is shown to be destined to Crane, Mo. Apparently that was the end of the division and the conductor got mixed on it, but it now contains company supplies;

that was seven days later. Q. What is the weight?

A. 20,000 lbs; that is seven days later than the other

Q. It was shown to be an interstate movement on the first move-

A. Yes, sir; where the car was in the interval, I couldn't say; in the first movement, it was destined to Hoxie, and in the second movement, it was destined to a White River point.

Q. Isn't it destined to Crane, Mo. in the first instance?

A. That is the second move. Q. Isn't it true also of the first?

A. My record doesn't show that; it may have been; the conductor showed in the first instance it was destined to Carthage, and we have apparently located the billing on that examination; I see there is a check against the destination, indicating to my mind it was found there; this other movement is seven days later; whether those two will compare or not, I cannot say; it is quite possible for the car in seven days to go from Newport to Carthage, and again moved seven days later, in company service, from Cotter to Crane; they are not a great distance apart.

Q. Turn to car I. C. 33909, which moved on Oct. 8th, on train

245; what is the weight and classification of the freight? That is Cushman to Newport.

A. I haven't it here.

3704

Q. May be it is on train 295.A. The train I had is Cushman to Newport.

Q. 295 is Cotter to Batesville?

A. Yes, sir; it is on train 295 from Cotter to Batesville, southbound.

Q. What do you find there?
A. The car is shown as going from Silamore to Batesville, and the ultimate destination of it is shown as Paragould, and it is classified as state business, 67,200 lbs.

Q. Turn to train 91, Oct. 11, Newport to Argenta, what do you

find there?

A. Moving from Newport to Bald Knob, and said to contain 45,000 lbs. of company freight; here the destination is shown as station 937, which is apparently in error, because the car is moving south from Newport, and the destination indicated by the conductor is Cairo, Ill., which is north. The destination given on the first sheet is Paragould, which would require a northward movement from Newport to Knobel; this car seems to be going the other way.

Q. You have there train 295, and then I gave you the last train 91; in between that, there is train 245, Cushman to Newport?

A. Yes, sir.

Q. It is not worth while to look at that, because the weight and classification is the same there as on train 295, and you find it

the last time on train 91.

3705 A. That wheel report on 245 confirms the statement that the car is destined to Paragould; I notice here that we have noted in the wavbill reference, that the car was wavbilled at Silamore, and the weight was the same. I would infer that either the number of the car shown in train 91 is in error, or that same was reconsigned, or other disposition was made of the car; the two movements of the car on the White River division indicate it being destined to Paragould, which would require a northward movement from Newport, but the train on the main line is hauling it south to Bald Knob; there is no indication that it is the same movement; of course, I don't know that it is not, but it seems improbable.

Q. The difference in the contents of the car is 12,200 lbs., and

the classification is different?

A. If it be the same movement the comparison is right: I don't know how you could compare them if they were not moving under the same waybill.

Q. Can you move either way, north or south, going to Cairo; it

might go off the White River Branch via Bald Knob?

A. I can't conceive of anything short of a blockade on the main line that would take it all the way around by Bald Knob to Cairo.

Q. It might go by the way of Paragould then.

A. I am not clear as to which is the short haul, but I can tell you in a minute; it would be a longer haul by way of Bald Knob, considerably.

Q. If it would go the other way, would it go by Paragould? A. By Knobel, which would be north of Newport, and 3706 then down the branch 20 miles to Paragould; it would be a somewhat longer haul the other way; it might go the other way.

Q. That is one of the cases we were discussing the other day, when you were testifying in regard to the movement of trains and retention of trains in terminals, and you were talking about the

back haul through Knobel?

A. Yes, sir.
Q. This business might have gone to or from Newport, south by way of Bald Knob or north by way of Knobel and gone to Paragould?

A. Yes, sir, there is a choice of routes.
Q. This had to travel a good distance on that line from Silamore? A. Yes, sir; once you get the car to Newport, it is just a question of which route you take on the main line; the shorter route is by Knobel; of course, it may be the same movement, but it is not linked up here.

Q. Turn to Missouri Pacific car 29263 on train #91, the first

move, Oct. 14, Bald Bnob to Judsonia?

A. Yes, sir.

Q. What do you find to be the weight and classification?

A. Said to be moving from Bald Knob to Judsonia, and to be destined to the latter point, and to contain company material, weight of 82,200 lbs.

Q. On Oct. 17, on the same train, I take it that stuff moved from Judsonia to Kensett, showing the same weight and classification; see if you find that?

A. Yes, sir.

Q. On Oct. 21, the car moved still on the same train, from Kensett to Higginson, what is the contents and the classification of that

A. It is shown as containing state business, 80,400 lbs.

Q. On Oct. 30, you will find car on the same train from Higginson to Garner, what is its contents on that occasion?

A. The car is shown again as containing coal, 82,900 lbs., of

interstate business.

Q. So that car appears to be classified company material, containing state business, and containing interstate business, on these three

movements?

A. You will notice that on the first move from Bald Knob to Judsonia, the car contained 1800 lbs, more than it did on the second move from Judsonia to Kensett. That is a Mo. Pac. coal car, my memorandum on the margin of these sheets indicates the car was loaded with coal; that looks to me like a car of station coal, peddling down the line, but that does not account for its commercial classification during the last move; there was a lot of coal stored at Bald Knob during that period, I take it as being company coal; it was a car which was partially emptied, probably, but sent on down the line, and that accounts for the decreasing weights, where it is classified as company business; whether it was eventually handled as commercial coal, I couldn't say.

3708 Q. That doesn't account for its being classified as company business?

A. Not for the last moves.

Q. Take up car Erie 51746, train 91, Oct. 4, that car moved from Hartshorn to Newport, what was its weight and classification.

A. I do not find an Erie car in train 91 between Newport and

Baring Cross on the 4th.

Q. I said Hartshorn, I should have said Hoxie?

A. That is shown as picked up at some point, moving to New-port.

Q. The first movement, I call your attention to, is from Harts-

horn to Newport.

A. Yes, sir, moving from Hartshorn, which is the second station north of Tuckerman to Newport, shown as containing 87,400 lbs. of interstate freight.

Q. The next movement is on train 91, from Austin to Baring

Cross, that is on the 14th of October.

A. I do not find the same car.

Q. On the 12, it moved from Newport to Austin, and on the 14th it moved from Austin to Baring Cross.

A. The car moving from Austin to Baring Cross on the 14th

is 51,796 Erie.

Q. Returning on the 12th, Newport to Austin, train 91, what do you find there?

A. No, sir, that is car 51,796; those car numbers have been checked by the transportation department to see if they were right;

I will say for your information, if you desire to compare the 3709 movement of 51,796 Erie on the 12th and 14th, there is a difference there of about 400 lbs., I think—there is no difference practically—the cars are classified and the weight is the same on both trains.

Q. Do you recall that the car reports show that the conductors made a mistake that day in those cars, and that those are really the same car, that the number was 51,746, and that he made a mis-

take in entering it on the list as 51,796?

A. Not out of this multitude of cars; I would say for your information, that we attempted to use the company's car records to locate some of these cars, and we gave up in despair. We found that back in 1907, under another management than that which now has charge of the car accountant's office, the car account was not very reliable; I found many instances where the car was entered under two or more different movements, under two or three different conductors on the same day, and I endeavored to find some of these cars in the car record, but it would show the car in question in Kansas or some other place the same day we had it in Arkansas; we had very little reference to them, but what we did do, we found they were of no use to us.

Q. Give us the weight and classification of that car?

A. Which?

Q. Moving from Newport to Austin and Austin to Baring

Cross, car 51796. 3710

A. I have a move of 51796 Erie on the 12th of the month. from Newport to Austin, and the weight is classified as interstate 87,800 lbs. I find the same car, 15,796, Erie, moving on from Austin to Argenta, two days later, and it is classified in exactly the same way, same weight and same classification.

Q. How is it classified on the 12th?

A. Interstate, 87,800. Q. Isn't it classified as trans-state on the 14th?

A. No, sir, not on this sheet.

Q. Do you know the character of that tonnage? A. No, sir, I would have to see the waybill. Q. Turn to car P. L. 559,115, train 91, Oct. 25.

A. I find 559,115 Pennsylvania Line, on that day; it is shown as moving from Hoxie to Newport, and is said to have contained state tonnage to the amount of 56,300 lbs.

Q. Turn to the same car on train 91, Oct. 26, and see what the

weight and classification there is?

A. That shows to have been loaded with 44,100 lbs., and it is classified here as interstate business, but it is moving from Bald Knob; there may have been a confusion of car numbers there, for this reason; here is a car moving on the 25th from Hoxie to Newport, and the next day, it shows it is picked up by another train at Bald Knob.

Q. What I want to know is, if your working sheet, your abstract shows that car, the number which you have there, 3711

moving on those two days and on those two trains?

A. Yes, sir, and it shows a missing haul in there between Newport and Bald Knob, when probably it is the same movement, with a through train movement during the night.

Q. The difference in weight is 12,200 lbs., and it is classified one

time as state and the other as interstate freight?

A. Yes, sir, if it is the same movement.

Q. I want you to take C. B. & Q. 100,718, less than carload ship-

ment of an automobile.

A. I wouldn't know that from this sheet; it might be a less than carload or carload; it is optional to take the carload rate, minimum or less than carload rate; sometimes the carload rate is cheaper.

Q. That moved out train 91? A. I haven't the movement here on 91.

Q. On Oct. 23?

A. Yes, sir, the weight shown isinterstate business 20,000 lbs. Q. Take the movement from Swifton to Newport on the 25th on the same train?

A. I find the same number two days later, moving from the station at which it was set out by the other train, differently classified; in the first instance, the conductor shows that the car was des-

tined where it was set out; in the second instance, where the car is classified, it is shown as trans-state, and the destina-3712 tion is shown as Alexandria, La., which I find is checked; it would occur to me that the car was unloaded and re-loaded, or possibly re-consigned.

Q. What does your sheet show as to the weights and classifica-

tion?

- A. Into Swifton, 20,000 lbs., from Swifton into Newport, 10,000 lbs.
- Q. Take the same train south, 91, and state what is shown on the movement from Bald Knob to Baring Cross on the 26th of October?

A. The car now is said to contain wheels, company material. Q. No weight given?

A. We didn't bother with the weights, because at that time, we were not going to use company material weights, and didn't classify them; this is a copy of the wheel report for a train that was missing on our first check, which Mr. Emlett very kindly obtained for us. That is why there are no company weights on there where there was on the other sheets.

Q. Take M. P. 62173, train 295, 10th of October, moving from

Earle to Wynne.

A. That car was billed from Earle to Wynne, the man said it was destined to-looks like Ft. Smith; apparently it was not classified as state business; 80,000 lbs.

Q. The next movement is on the same train from Wynne to Bald

Knob, what is the weight there?

A. Yes, I find it; it is classified as state 73,800 lbs., a difference of 6,200 lbs. I assume that we had the billing on that

car, on the first movement before it was weighed, and the next time, had it after it was weighed, or there is a mistake there; I think we had the billing in one case; I am inclined to think we had two waybills for one car or to give two movements.

Q. Do you remember where that shipment originated?

A. No, sir, I am just assuming that as it would probably account for the difference.

Q. I am told it was really an interstate shipment. A. I would have to see the waybill to determine that.

Q. Take Mo. Pac. 600,07, lumber from Norvell, Ark. to Kansas City, Mo., train 295, Memphis to Bald Knob, 22nd of October.

A. I find M. P. 60,007, moving from some point on the Memphis Branch to Wynne, said to be destined to Kansas City.

Q. What is the weight of that?

A. 79,800 lbs, interstate.

Q. The next movement is on the 23rd from Wynne to Bald Knob?

A. Yes, sir.

Q. What are your weights there? A. Shown there as interstate, 66,0004.

Q. That is a difference of 19,400 lbs.?

A. Yes, sir.

Q. Take car #58,581, New York Central & H. Railroad, 21 of Oct. Movement from Newport on train 245, Cushman to Newport?

A. I find that car moving from Newark to Newport in 3714 that train on that day, shown as interstate 13,500 lbs.

Q. Isn't it 12,500, that is the figure- I have here?

Q. Look at the same car in train 91 from Newport to Baring Cross, on Oct. 22, and see what its weight and classification is?

That car is moving from Newport to Baring Cross on the 22nd, and it is said to contain 47,100 lbs. of state business; the first move was from Newark to Newport, and the weight of the contents, and the memorandum which we have on the sheet here, indicates that it contained cotton; I assume if it contained cotton in the first instance, the cotton was unloaded at Newport; 47,100 lbs. in the car south out of Newport was not cotton, because you couldn't get it in the car.

Q. The difference in the weight is 34,600 lbs.

A. Yes, sir, if it covers the same shipment, which I doubt, because there is a compress in Newport which would undoubtedly take care Newport cotton.

Q. There is a difference in the classification too?

A. Yes, sir, cotton is all interstate in Arkansas; the point I was making is that if the car carried cotton into a compress point such as Newport, it would undoubtedly leave it there, and the other movement showing a different weight, I would think there was a different shipment.

Q. The waybill showed it contained 35,600 lbs. of cotton

seed.

A. After it left Newport. 3715

Q. I understand the waybill shows that.

A. I would have to see the waybill to say that; it looks to me like two movements.

Q. One is on the 21st and the other the 22nd?

A. Yes, sir.

Q. The next movement of that car was from Bald Knob to Baring Cross, can you turn to it without the date?

A. On the 24th, from Bald Knob into Baring Cross; this time it contains cotton seed, said to be loaded 60,000 lbs.

Q. That is a difference of 12,900 lbs. in weight?

A. Yes, sir, if they are the same movements; those are into one point and out, and into another point and out, as you go along.

Q. I want you to take up car 6607 C. H. & D., train 97, Malvern to Texarkana; on the 4th of October; it moved from Malvern to Prescott; state the weight and classification?

A. That is shown as moving from Malvern to Texarkana, 857

to 894,-that is Texarkana.

Q. On the 4th of October?

A. Yes, sir.

Q. What does the record show?

A. Said to contain 27,248 of state business.

Q. See if there is a movement of that same car on that same train Oct. 14?

A. You have got to the end of the road when you get to 3716 Texarkana; it couldn't be a connected movement of that car; it would have to be in the opposite direction or another movement; you see, if you moved the car in the first place from Malvern to Texarkana, you couldn't move it any further.

Q. Your sheet there from which you have made up these figures, shows that it went on a continuous journey from Malvern to Tex-

arkana?

A. Yes, sir. Q. That, of course, would indicate that the next movement was a different car?

A. I should judge so, especially so as it is ten days later.

Q. I want you to give me the movement of that number of car

on the 14th?

A. I find that this car on the 14th, 6607 CH&D, moved from Prescott to Hope; that movement is entirely inside the first movement, and ten days later; in the first instance, the car is shown as moving from Malvern to Texarkana, and it would, of course, complete any journey it had to make on the Iron Mountain, when it got to Texarkana, and it would, of course, complete any journey it had to make on the Iron Mountain, when it got to Texarkana; this second move is from Prescott to Hope. Undoubtedly, it is not, according to my mind, the same movement; in the first instance, it is shown as being destined to Texarkana, and the second instance, to Hope.

Q. Where did the information as to the movement of the first car from Malvern to Texarkana, which sheet does it come

3717 from?

A. It comes from the wheel report and is put on this sheet. Q. We will have to go to the waybill, of course, to settle that;

give the weight and the classification of the car on the 14th?

A. On the 14th of October, I find car 6507 CH&D moving from Prescott to Hope, and in that instance, I find the weight shown as 60,300 lbs. I see no connection between that movement and the one previously mentioned on the 4th of the month, where it is shown on the wheel report that the car was taken into Texarkana, as far as it could go on Iron Mountain rails; I don't believe they have any relation one to the other.

Q. What is the second classification? The second is trans-state apparently.

Q. Take car 10426, ART, that moved on the 16th of Oct. from Cotter on train 295, from Calico to Batesville, state the weight and the classification.

A. 10426 ART shown as being destined to Newport, contained 8,000 lbs., cotton for the Newport compress, and it is classified ac-

cordingly as interstate business.

Q. Take the same car on the 24th from Batesville to Newport

in train 245, and state its contents?

A. I find a movement ten days later, from Batesville into New-port; this time the car contins 30,100 lbs., of state business; the other was evidently a cotton movement; the car has perhaps been into Newport and back out to Batesville for another load.

3718 Q. The waybills will determine that?

A. You may find two waybills; it would determine for

each movement, for the two movements; there would be two waybills if there were two movements.

Q. I want you to take cars 169 B. C. R. N. and 230 L. & E., on train #98, the 18th of October, and see what you find on that date, in regard to those cars, in respect to weight and classification?

A. 98 is from Texarkana to Malvern; I find both those cars, and they are said to contain each 40,000 lbs. of bridge material, company

business, property of the Iron Mountain road.

Q. Turn to the same cars the next day, the 19th, on train 96 from Arkadelphia to Malvern, and see what they show; the weights are

the same, see what the classification is?

A. There is a reference on this sheet, in my own handwriting, that the cars are on both trains; I say on one, see 96, on the other, see 98! whoever copied the *the* weights there has copied them in the wrong column; that soaked the state business with 80,000 lbs. of company freight.

Q. It entered into your figures as 80,000 lbs. of state freight?

A. Yes, sir, the state got the worst of it about that; we went through a lot of those trains and matched them that way to save extra work; whoever copied them, copied them in the wrong column, side by side.

3719 Q. Take car 14,411 M. K. & T., train 97, Malvern to Texarkana, Oct. 29, car moved from Arkadelphia to Gurdon;

state what the weight and classification was?

A. The car is shown as moving from Arkadelphia to Gurdon and contained 8200 lbs of interstate freight, apparently cotton.

Q. On the next day, Oct. 30, that car moved on train 891, from Gurdon to Camden?

A. Yes, sir, the Camden Branch local.

Q. State what the contents and classification there was?

A. There it is shown to have contained 27,000 lbs. of state freight; they evidently unloaded the first load at Gurdon, and re-loaded it for a point on the Camden Branch.

Q. The billing will show?

- A. Yes, sir, whether it was two movements or one; for two movements, there will be two waybills.
- Q. I want to call your attention to car 36,963, I. C. on Oct. 9, train 845, frobm Buel to Van Buren.
- A. That car is not on the train; I see a B. & O. car of that number.
 - Q. See if it went from Buxel to Van Buren, on the 9th of Oct.

A. I find that movement, yes, sir.

Q. What is its weight and classification?

A. It is classified as interstate business, 81,000 lbs.

Q. Do you find that car on train 191, on the 23rd of October?

A. That is 14 days later, isn't it?

Q. On the 22nd, Higgins to Wrightsville, see what your

3720 working sheets show in regard to that?

A. I find the same car, but carrying 60,000 lbs. of state business; but I don't connect it with the movement from Buel to Van Buren 14 days previous.

Q. What is the description of that car?

A. B. & O. 36,963.

Q. Follow that car on the 23rd from Wrightsville to Woodson, and state what your abstract there shows as to the weight on the same train?

A. I find the car moving from Argenta, according to this sheet,

it is shown as moving from Argenta to station 4005.

Q. Did you treat it as a movement from Argenta?

A. Yes, sir.

Q. It is so shown?

A. Yes, sir, it overlaps the movement you quoted before. Q. I will assume that is a mistaken, the wheel report shows it is from Argenta to Wrightsville?

A. Yes, sir.

Q. State what the weight is?

A. If you are comparing those movements, which there is no basis here for connecting. I can give you the separate weights of the two movements; one is 60,800 lbs. of state freight, and the other is 80,200 of company coal; the car is a company car; the first movement, Buel to Van Buren, is still more remote.

Q. Take the same car on the 25th from Woodson to Red-

3721

A. There I find the car moving from Woodson to Redfield, and

the tonnage is 66,300 lbs.

Q. Take the same car on the same train the next day, the 26th, Redfield to Pine Bluff, state what the weight is and classification?

A. The car is moving there, classified as company material, said to contain 80,000 lbs. It seems extremely probably to me, that there were two cars of some similar number moving on that line.

Q. Take the same car on train 193, moving from Pine Bluff to Varner on the 28th, and see what you have in regard to that car?

A. That is still two days later; I don't find it under that initial; I find now that I have car 36,963 B.M., that is said to contain company coal 62,600 lbs.

3722 T. A. HAMILTON.

Cross-examination resumed by Mr. Moore:

Q. Mr. Hamilton, how do you account for the mistakes to which your attention was called, in the weights and classification of cars as they appear on your working sheets?

A. I would like first, Mr. Moore, to satisy myself that they are

all mistakes.

Q. Assuming that they are mistakes: how do you account for them?

A. Human fallibility.

Q. If those mistakes were of any considerable extent they might very seriously affect the value of your exhibits, might they not?

A. If expressed in ton miles the net difference was such as would materially change the percentage shown on Exhibit I, to just the extent that they affected that percentage they would impair the value of our exhibits.

Q. I believe you stated that you took these weights from the way-

bills, did you not?

A. Those were my instructions to the gentlemen working under my supervision, yes, sir.

Of course, you understand, Mr. Moore, that in the tabuulation of a statement of this size, it would be impossible for 3723 me to see every figure. Had I done that, I would have compiled the statement myself.

Q. I understand, Mr. Hamilton. No one man can do that. You

have to rely upon the skill and accuracy of others.

A. Speaking of the effect, Mr. Moore, that changes of the character I have outlined, might have on this statement, I would like to refer to a somewhat similar check that I had occasion to make in the Missouri Rate Case.

The Missouri Pacific Railway submitted a large statement as showing the effect on the Company's passenger earnings of the op-

eration of the two cent fare law.

I recall it took some three or four six-months' periods before, after

and during the operation of that law.

On behalf of the State of Missouri, we checked that statement. I, personally, did a great deal of the work; in fact, a major portion of it, and as I recall it, there were between 1500 and 2000 errors in the statement, which I, however, tabulated as I went along.

When I got through and figured up the effect of those errors, give and take on the statement. I found that the net difference was

so small that we approved the figures.

It is so in large statements of that kind where work is condensed into a comparatively brief space of time and worked up hurriedly,

but where the principle on which the statement is correct, 3724 and the work is conscientiously and consistently done, I always have great faith in the net result, regardless of minor errors.

Q. Did you make any comparison of the weights that are contained in your abstract sheets with those shown in the Company records, to see that they corresponded as to this local tonnage?

A. Those weights were derived from the Company's records as to

each particular record.

Q. You did not make any particular comparison?

A. We got them from the record in the first instance.

Q. For that reason you saw no necessity for comparing them?

A. We saw no necessity of doing the work twice. Q. It would have been a verification, would it not?

A. It would virtually have been making the statement twice.

Q. In allotting or determining the amount to be charged to interstate business, did you take into consideration the fact that the movement of empty cars in local business was very large, nearly 100% of the cars that were hauling the following commodities:

Lumber and other forest products to manufacturing centers; cotton seed to oil mills; coal, stone, sand and gravel from producing points to consuming points, would involve a return movement, either going—usually going—of empty cars?

A. That would depend on many things, Mr. Moore.

3725

Q. I mean now in the operation of local cars, in the conduct of this local traffic?

A. Whether it would be necessary to provide a return load for the car going in any given direction, or hauling any given class of traffic, would depend first on whether that car had to be brought back to the point at which the shipment originated, or to the territory in which it originated.

It might be a car belonging to another line, very advantageously home routed with a load in the direction in which it was going. The movement might be the reciprocal loading for some other move-

ment.

It would require a man who knew exactly the details of the traffic on each piece of the road, to answer that quetsion as to whether there would necessarily be such an empty movement.

But if you ask whether we took that into consideration in dividing our state and interstate expenses, I will say that a car mile was a car mile to us.

Q. Which means that you did not take it into consideration?

A. I don't see how we could.

Q. Suppose it should turn out that upward of eighty per cent

of that class of business involved an empty movement:

Would you not think that was a material consideration which should be brought out and taken into account in making the division of expense as between state and interstate business?

A. Our division, of course, was primarily between through and local trains, and it seems to me that we would have to have the exact factors as to which business caused the most empty movement, state or interstate, before we could intelligently answer that question and before anybody could pass on it.

Q. Now, apply it to the train itself, the train movement as between

local and through trains:

There you have on local trains a condition under which there is a very heavy movement of empty cars which produce no revenue, but are an expense to the railroad company, and as to which there is no corresponding condition existing as to the through local trains:

Should that not be taken into consideration in determining the expense of operating the two classes of trains? Not speaking now of the business itself, but the operation of the two classes of trains?

A. I would first have to know why these empty cars were put on the local. It seems to me that the local in that case is relieving the through train.

As to the effect of it on the division between state and interstate business, we would have to know for what class of business the

empty movement was made, whether it was an empty return movement of interstate business, or a movement to load inter-3727 state business, or the same for state.

Q. The matter I am speaking of is state business, because it is

lumber and forest products to manufacturing centers; cotton seed to oil mills-

Mr. HILL: What state-

Mr. Moore: The state movement of these commodities.

Q. I am confining myself to that. Let us now pass from that to

the effect upon the business itself-the traffic:

You divided your expenses on the basis of the car mileage and disregarded the loading of the cars: if the fact should be established that as to that kind of local business there was a large empty movement, would it not be a consideration that should be taken into account when you came to divide the expense as between state and interstate traffic?

A. I understand you to say about eighty per cent?

Q. I asked you if about eighty per cent of the traffic of the cars that hauled these commodities one way, don't result in an empty movement in the opposite way?

A. I don't see how eighty per cent of the Company's business, expressed in ton miles, which is the intrastate ton mile total, could

possibly cause eighty per cent of the empty car movement.

Q. I did not state that. I said, if about eighty per cent of the movement—we will say in the transportation of cotton seed to the cotton mills-if about eighty per cent of the cars that hauled the seed to the mill, do not return empty to the point where they obtain the seed?

A. I have no information on that.

Q. I wanted to make it plain to you. I do not mean of course,

eight or eighty per cent of the total movement of cars.

A. But you would have to first determine what the cars were hauled empty for in each class of train, before you could consider that factor.

Q. But if what I have assumed were true, would it not be an important element of expense? That is the point I want to call your attention to. I am not trying to prove whether it is true or false, but I am trying to ascertain your view as to whether it would be an element of any importance if it is true?

A. I would first have to have all the information I mentioned, before I could pass an opinion. I would not want to do so other-

Q. What is the information you have to have?

A. As to the purpose of hauling those cars in the local train; whether they are hauled for the state or interstate traffic.

My understanding is that the state traffic takes care of itself prety well, in the way of empty cars. The dispatcher usually finds cars on his division to take care of his needs, except in the cases of every large movements, and it seems to me that they keep those cars pretty close at home, and the local would distribute as many cars at its way stations to take care of interstate

business, as it does to take care of state business. Q. Let us get down now to a simple basis by assuming that cars that haul these products—that is, lumber and forest products to manufacturing centers; cotton seed to oil mills; and coal, stone and

gravel from producing to consuming points.

In point of fact, the cars which haul those commodities from the producing to the consuming point, do in fact return; that is, a large proportion of them do in fact return empty back to the place where they were loaded.

Now, just assume that fact; that is all that is necessary for the proposition that I want to call your attention to. I want to know if, in your judgment, that would constitute an element of any importance in dividing the expenses, either between trains, or be-

tween local and through business?

A. If you will eliminate the question as between trains and confine it to a division between state and interstate business, I can answer it.

Q. Well, I will do that.

A. I will say that if your assumption that there is no 3730 return load for cars handling the traffic you speak of, in state business, and that you further assume that that is a large portion, that the statement is correct; that the extent to which there was no return load for those cars, there would be an extra expense of that business.

Q. You stated, Mr. Hamilton, that that local business took care

of itself:

Do you mean that the cars that are employed in it, in local serv-

ice, are retained at the local points-

A. I don't imagine that a dispatcher who knew his business would let cars lie around, there should be a great deal of loading at these stations where cars are made empty and in that case it would obviate the necessity of setting out cars. I should think a dispatcher would make his agent make use of his empties, sooner then send him any.

Q. Now, going back a little to your Exhibit I:

Your first column represents the ton miles of freight carried on local trains?

A. Yes, sir.

Q. Your second column represents the ton miles of freight carried on through trains during the month of October; both of these are the month of October?

A. Yes, sir.

Q. The last column, which is headed "Total" represents the total tonnnage, and expresses in the various ways as expressed in the exhibit, as you obtained it from the exhibits filed in the 3731 case by the Railroad Company—

A. Exhibit 26.

Q. Now, in making up your exhibits and preparing the figures upon which you have based your division of expenses, you made no effort through any investigation of your own, to ascertain what business was done on through trains? You confined yourself to the local trains: that is correct, is it?

A. We made no attempt to analyze the performance of through

trains from the wheel reports.

Q. You determined the performance of the through train by determining the local trains-deducting that from the tables as ascertained from Exhibit 26?

A. Yes, sir; that is the plan.

Q. Of course, the correctness and the value of the figures prepared by you depends upon whether the two sets of figures-that is, the figures based on your investigation of local trains, and the figures shown in the column taken from Exhibit 26, reflect similar conditions?

A. That would seem to be the logic of it.

Q. Is it not true, Mr. Hamilton?

A. Yes, sir.

Q. What per cent of the total business did you investigate on the Iron Mountain road, as shown by you? It is about 11.18%, is it not?

A. Expressed in ton miles.

Q. What is it on the Cotton Belt road?

3732 A. 10.9%. Of course, that is Mr. Kimbell's figure. Q. You have already testified, Mr. Hamilton, that you

know how Exhibit 26 was made up:

State in detail what your understanding is as to the manner and the sources from which Exhibit 26 was compiled?

A. After we had our misunderstanding as to the mileage basis, which I referred to yesterday, at my request Mr. Roth furnished me with a memorandum as to how Exhibit 26 had been compiled, covering certain points that I desired specific information on, and it confirmed the verbal understanding I had had with him prior to that time, except on the mileage proposition, and I have that before me now. It expresses my understanding of how he got his figures.

Q. Please state what it is.

Mr. HILL:

Q. Is that Mr. Roth's statement? Read it into the record. A. Yes. It covers a lot of minor matters that are not basic matters, but the basis on which he got his figures is in here.

Mr. Moore: Read it in part or all, into the record.

A. "System business": The data is taken from the Company's journals. The journals are abstracts, as I explained in my examination in chief, of the way-bills, or the impression copies of the way-bills, on which the auditor basis his check of agents' "freight received" reports, and ascertains that the Company is getting its

3733 Q. Are you still on the "journal"?

A. I have not quite finished. Prior to journalizing those way-bills of course they should be-I don't know what the practice was just at that time-gone over to see that the rates and extensions are correct and that the revenue shown therein is the amount that should be collected by the agent. Some adjustments are afterwards had, necessarily, where there was a disagreement between the agent and auditor as to rates, weight, etc.

Q. What do these journal entries represent?

A. They represent the charge to the agent, in the first instance, for freight which he is to collect; the credit to him for freight collected at other stations and which is billed as pre-paid; the charges to him of advances to other stations, the collection of which he is charged with. They show the weight of the shipment and an index to its classification, for the purpose of the Company's statistics—that is, by commodities and classes.

In addition to that, they give the index of the way-bill number and date, and supposedly, in the case of carload shipments, the

car number.

That information is grouped by receiving and forwarding stations in approximately a geographical order.

Q. What do you mean by the term "System Business"? You

said "System Business".

A. Business intercharged between stations on the Mis-3734 souri Pacific Iron Mountain System, which includes the Kansas branch lines of the System. That is ordinarily known as the "Missouri Pacific System". It would not take in the T. & P.; the I. G. N., or the Denver & Rio Grande.

Q. Does that journal show any freight in the month of October

that was not billed in that month?

A. No, sir; it is entirely on the "forwarded" basis.

To explain what I mean by "forwarded basis" it is an abstract of the way-bills made at Missouri Pacific stations during that month, to stations on the Missouri Pacific.

Q. It then represents the date of the billing or receiving of the commodity at the station on the Missouri Pacific System at which it was received rather than the date at which it was moved?

A. Always the date of the billing. The date of the receipt might

be, in extraordinary cases, in the next month.

Q. But it is the date of the bill and that is ordinarily the date

it is received?

A. I suppose there would be very little of the Missouri Pacific business—I am not informed as to that. That is, that a shipment billed at one Missouri Pacific point, unless billed near the end of the month—

Q. It includes only such business as is actually billed in the

month of October?

A. It is on a "forwarded" basis entirely.

Q. I want to ask you if that billing record as it appears in the journal, actually represents that class of freights? I am going now to the "System business" that is handled over the rails in the state of Arkansas, during that month?

A. I can readily conceive where some business billed in a prior month would finish its journey on the System rails in the following

month.

Q. That would not be included in that journal?

A. No, sir; it would be in the journal for the preceding month, on a "forwarded" basis.

Q. I believe you stated yesterday, when you were asked about

tracing the movements from the wheel reports to the waybills, that you went back into the waybills of September to get some of the bills that did not appear in the journal representing the October System business.

A. No, sir; it should have been journalized and was journalized

in September.

Q. On the other hand, suppose a carload of freight, or less than carload, as the case might be, is billed in October and does not move until November or December:

That journal does not in that case reflect the movement over the

rails of the railroad company?

A. No, sir; it reflects the date on which the shipment was way-billed.

Q. If such delays as you have indicated in your testimony existed in the forwarding business on that road, did occur and were as general as you have advised us they are, there might be a good deal of business billed in October that did not move that month, as shown in your "total" column?

A. There might be business, and there was business billed in

September which moved in October.

Q. And in October which moved in November?

A. I can't say as to that. I was working on a movement basis

and concerned myself only with the stuff that moved.

Q. If business was not in the habit of moving promptly and swiftly from the time it was received by the railroad, but there were delays, then what would be your judgment as to whether the commodities that are billed and shown on this journal "B" reports, could be assumed to have moved in that month, all of it?

A. It would be my opinion, Mr. Moore, that there would probably be as much October business moved in November, as there was September business that moved in October, the conditions being the

same throughout that period.

Q. So this billing record, then, would not in fact represent the real movement of traffic over the rails of the railroad in Arkansas?

A. It would represent its way-billing dates.

Q. Mr. Hamilton, do you think there is a large percentage of that lap-over business from month to month, that you spoke of just now?

3737 A. Pardon me a minute. I have some figures here that I would like to refer to.

Q. Very well.

A. (After examining figures): I worked up from the Company's records the total freight train mile figures in Arkansas, for some months—for the entire six months in which we were interested, and I found that there is not a great deal of fluctuation in that figure from July to August; August to September; September to October; October to November, and November to December.

It runs along pretty well, and I should assume from that that if there was a heavy September lap-over into October, and if the Company ran almost as many trains in November as it did in October, some of the October business would have lapped over into November.

They would not run trains that they had no use for.

Q. Mr. Bee and other witnesses have testified that there was a blockade beginning in October of that fall, which impeded the movement of trains and the handling of freight: What effect would that have upon this particular month, October 1907——

Mr. HILL: Did Mr. Bee testify that there was any blockade on

the Iron Mountain in Arkansas?

Mr. Moore: I think so; yes, sir.

Mr. HILL: I would like to be cited on that.

Mr. Moore: If he did, it has been stated—I asked him 3738 if he thought it was on that line and I think he stated it was, if I remember correctly.

Q. —and upon these fluctuations to which you referred a mo-

ment ago?

A. I find that in October, 1907, the figures taken from the Company's statistics show 274,000 freight train miles—in round figures; there are some odd; and in November, 268,000 freight train miles. Pretty close together. From that it would seem that whatever traffic conditions existed in October, also existed in November.

I base that, of course, upon the assumption that the Company would not run freight trains, except locals, until they had tonnage for them, and that the trains run were necessitated by the volume of business which was moving, and that the practically level train movement would indicate like movement in the two months.

Q. How was it in September?

A. September runs 265,000 train miles as against 274,000 in October.

Q. Do your investigations there show the per cent of the lap-overs, of the fluctuations in October?

A. Do you mean in ton miles?

Q. Yes, in ton miles?

A. No, sir. We interested ourselves in finding waybills to cover the movement of these October trains, and when I made the 3739 statement that some of them were September way-bills, I recall going to the September records for them.

Q. What would be the per cent of difference on state freight, if you can say, as shown by the records kept by the Company, showing the billing, and the actual movement as developed, we will say, by

the exhibits introduced by the State in this case?

A. As we based our Exhibit I, on Mr. Roth's Exhibit 26, and the total intrastate freight on Exhibit I, expressed in ton miles, agrees with the total ton mileage of intrastate freight shown on Exhibit 26, and Mr. Roth states that he took his figures for Exhibit 26 from the Company's records, I should say that the total of our Exhibit I, agrees with the Company's records. It depends, of course, upon the accuracy with which Exhibit 26 was compiled.

Q. That is all right, but what I want you to state now is this: what is the difference, in per cent, in the state freight in the month of October, as shown on Exhibit 26, and the amount of freight

actually moved and handled on the rails of the Company in Arkan-

sas, during that month?

A. To answer that question and to give you a mathematically exact answer, it would be necessary to work up the performance of the through trains, added to the performance of the local trains, and compare the result, expressed in ton miles, with Exhibit 26.

We have gone on the assumption that the lap-over from 3740 month to month, would take off trains, such September way-

bills as are not included in Exhibit 26, and add to our trains such October way-bills which were included in Exhibit 26, and moved in November. So far as the actual train movement is concerned, the two are about equal.

Q. Do you know what proportion or part of the state freight in

local trains was not included in Exhibit 26?

A. No, sir.

Q. Could you have found that by making an investigation?

A. Yes, sir, we could have tabulated the September way-bills which we located on our local trains.

Q. Would that not have given you some relation between the figures worked up by you and the showing made by Exhibit 26?

A. No, sir; there would have been another side to the proposition. I would have had to find out how much November movement on trains was on October business.

Q. What would have been disclosed to you if you had made that

examination?

A. That there was included in the October train movement certain September ton mileage, according to the Company's journal records.

Q. Have you any idea, er can you state approximately what the per cent of difference is between the business shown by the Exhibit and that actually moved in state business that month?

Mr. Hill: He has answered that question in different forms, about four different times. I submit it to the Mas-

The MASTER: He may answer the question this time, but there is no need for repetition.

A. I have no information and cannot answer-

Mr. MOORE:

Q. I did not ask you that question before, or anything like it:
I have asked you if you could state amounts, but now I asked
you if you could state approximately.

A. I think my other answers would cover that. Unless we had tabulated those September way-bills we could not have told what

the percentage of ton mileage covered by them was.

I said we had not tabulated the way-bills. To clear that up and reduce it to one answer, we worked entirely on the assumption that the lap-over of September billing into October, covering freight which we found on our October trains, was off-set by the lap-over of October billed stuff that got on to November trains. That is it in a nut-shell.

Q. Are the lap-overs in the same proportion, on state and interstate business?

A. I should assume that they were. In Mr. Kimbell's judgment the movement in October was typical of a series of years, so far as the relation of the two classes of traffic are concerned.

Q. Have you made any investigation for the purpose of informing yourself, whether there would be any difference in the proportion of the lap-over between state and interstate freight?

A. No, sir. Inasmuch as we applied the percentage we obtained on this one month's business, to the six months' business, it seems there the lap-over would take care of itself pretty well.

Q. How would the proporition of the lap-overs compare as between freights carried on local trains and those carried on through trains?

A. Mr. Kimbell's assumption being that the two classes of traffic, state and interstate, would move in relatively the same volume for the six months, or for a period of years, that it did in October, I would have to imagine a violent change in the method of handling state and interstate freight, as between through and local trains, to make any particular difference.

I suppose the state freight that ordinarily traveled on local trains in October, would naturally follow the same channel in November, and the same is true of interstate, and also of the two classes on

through trains.

Q. If we assume that the difference in state freight, as shown on Exhibit 26, as compared with that actually handled on account of lap-overs, was 4½%, and that the difference in interstate

3743 freight was 23%, would you think that that statement of the larger percentage of interstate freight seemed excessive, or do you think there would be as great a difference as that?

A. I will have to answer your question Yankee fashion.

Q. That is all right.

A. I infer from your question, Mr. Moore, that your percentage assumption referred to the September freight which was carried on October trains?

Q. I refer to this: I refer to the tonnage or amount of freight as reflected in Exhibit 26, that class of freight, state freight, and the amount that was actually handled and moved in the State of Arkansas—referring, of course, to the state freight first, and then afterwards to interstate freight.

A. The difference between the two would be the lap-over we speak of, and in my judgment would not exceed, if you consider both lapovers, September into October and October into November.

If your percentages do not contemplate both those lap-overs, I should say that in my judgment they are not correct percentages.

If they contemplate the September lap-over only, you have stated only one side of the proposition. You would have to have all the factors before you.

Q. Let me explain: I am not assuming that it was a September lap-over, if that is what you mean; that is, business of September that was carried or not carried:

I assume now that the total difference, as shown by an in-

vestigation of the business handled, according to the records upon which Exhibit 26 was compiled, and that actually handled upon an investigation of the performance of the local trains as made by you. Upon that basis I want you to state it.

A. I cannot see the ground for comparison—

Q. I want you to state the effect upon the relative business, state and interstate, if the difference in the interstate business was five times as great as on the state business.

A. It comes right back to the question of what went into these local trains' figures. In those local train figures is some September

lap-over.

Now, considering that alone and comparing the relative percentages of those figures with Exhibit 26, which covers all of the billed or are counted for business of the month, you have left out an element, and that is the portion of billed or accounted for business in Exhibit 26, which moved on November trains, and you cannot consider one without the other.

The lap-over at both ends in those figures which you referred to as compiled by me covering local train ton mileage from certain

September way-bills. Before I can compare Exhibit 26, 3745 which consists of all October business, as I understand it, I

must know what there was of October business in Exhibit 26 that went on the November trains and how it compares with the lap-over from September. Then I can tell you how Exhibit I compares with Exhibit 26.

Q. Do you go upon the assumption that if this 23% I mention, is correct, as appears from the record, that there would be a similar lap-over and a similar percent in November?

A. That is what I stated, sir. My opinion is that the lap-over

from month to month would be approximately the same.

Q. Do you work on that assumption?

A. That is what I stated in the first instance, that we worked exactly on that assumption.

Q. I wanted to get that clearly into the record.

Mr. Hamilton, I think you stated yesterday that your figures were made out on the same basis of those of Mr. Kimbell's, as shown in his Exhibits 19 and 20:

Did I understand you correctly?

A. I said, Mr. Moore, that there was no difference in the results so far as the carload business was concerned—or should not be—

speaking of the ton miles, of course.

Q. I do not want to take time to turn to Mr. Kimbell's testimony, but as I remember, Mr. Kimbell testified that he obtained the data and made the basis of his figures by putting men on the trains,

riding trains, and at terminal points, and obtaining from actual observation the movements: you did not do that?

A. No, sir.

Q. You took the data that was—so far as the performance of local trains was concerned—it was that alone you were dealing with—you obtained that in the same way as you described in your examination in this case?

A. Yes, sir.

Q. Are you correct in the statement that you obtained it in the same way that Mr. Kimbell did?

A. I do not believe I said just that, Mr. Moore.

Q. You do not intend to say that?

A. What I intended to say was—

Q. I may not be accurate as to that-

Mr. Hill: I will say that I called upon him to state the difference between the method followed by Mr. Kimbell and himself, and he made a calculation by demonstrating the difference in the less than carload—

The WITNESS: I take it, Mr. Moore, that what you are chiefly

concerned in, is whether our results were similar-

Mr. MOORE:

Q. No, that is not it. I am trying to ascertain if you meant to say your method was the same?

A. No, sir; what I meant to say was this-and what I think I did

say:

Mr. Kimbell placed men on the local freight trains who rode the trains and got the information from the way-bills in the conductor's possession. He placed men at division terminals

who handled the way-bills brought into the terminal by through trains, which was practically riding trains; with this difference that they accepted the conductor's statement as to the freight set out between terminals. In that way he got his information from the way-bills. Mr. Kimbell—during my examination in chief—stated and I think the record shows it, that the reports of these men were corrected up in the Auditor's office on the basis of actual scale weights.

We worked from the impression copy of the way-bills on file in

the Auditor's office.

I fail to see the difference.

Q. Doesn't Mr. Kimbell's method give him all the freight that was moved on through trains from actual investigations?

A. I thought we were discussing local trains?

Q. No, I am discussing the whole situation; doesn't Mr. Kimbell's method give him the freight actually carried on through trains?

A. Mr. Kimbell's figures represent, if they are accurately compiled, and I doubt not they are, the movements on through trains, taking from the waybill covering the freight in those trains; I think I have explained two or three times now, that we did not work up any through train figures.

Q. Wasn't there any other difference in the methods and in the

results?

A. Mr. Kimbell's method not only caused him to act with refer-

ence to the waybills, but he was dealing with the freight.

Q. His men were there present at the time on the trains, and didn't he, in his methods, eliminate that element of uncertainty

growing out of the lap-overs that would exist from taking the rec-

ords from the billing of the railroad?

A. Undoubtedly, whatever elements of uncertainty there is, it exists in working up the accounts and statements as exhibit 26 is, and deducting therefrom an actual figure or calculation, obtained

in a manner which closely approximates and brings the same 3749 result as Mr. Kimbell's local train figures; whatever the difference is, there will be that difference between the two

methods.

- Q. I believe it is shown that your exhibit I, does not show the average haul of state and interstate freight on local and through trains?
- A. That would be impracticable, when they are carried in the same cars, in the case of less than carload business.

Q. It would be quite an important fact in determining these

questions, if you could determine it, wouldn't it?

- A. The average haul of state freight in a local train can be ascertained, but you would have to match up the haul of each particular shipment in every local train it travelled in, for its entire journey, to get at the average haul of state shipments on local trains, and then if it got on a through train for an intermediate haul, it would further complicate the matter; I don't believe figures on that kind would be of much value.
- Q. On what mileage have you based your figures in ascertaining the performance of trains 205-6, between Cotter and Batesville?

A. I would have to see the sheets to tell you that. Q. Haven't you stated you used the station book?

A. We had some discussion as to that; in checking over some figures placed on our sheets by the railroad people, I found a difference of a mile; I was shown a telegram by Mr. Johnson from the

division superintendent to the effect that the mileage of that particular division in the station list was wrong; we had some discussion about it; there was a difference of one mile; I can look at those train sheets, and I would be glad to tell you.

Q. Wasn't that telegram to Mr. Amouck?

A. I think he was present, I forget who it was addressed to.

Q. Who was the telegram from, you said Mr. Johnson showed you

the telegram?

A. I was at Mr. Johnson's desk, and Mr. Amouck was there, and we were discussing the matter, and the telegram was there between us, and the question came up as to the actual length of that division, and I know it was a question of whether it was 95 or 96 miles; the station list shows the mileage to be 96, figuring the fractions, 95.63, which we would consider 96 miles, and my recollection of that telegram is Mr. Amouck said the correct mileage would be 95.

Q. What basis did you use?

A. There is a conflict of authority there, one the company's official list, and the other a telegram from the company's superintendent of the operating department; it would be immaterial in either event.

Q. I want to call your attention to another condition in regard to the mileage; you testified, I believe, that you thought it would be

good railroading, and you would assume that local business would be handled in local trains. Now, take business off the White

River Division, going to points we will say on the Valley 3751 Division, Pine Bluff or McGehee; what is the mileage shown on the railroad's schedules, and upon which that movement would be figured in the records on which exhibit 26 was compiled?

A. From a White River point to a point on the Valley Division?

Q. Say to McGehee, for instance. I mean, would the straight mileage from the originating point to the terminal station, be used by the railroad company?

A. You say to McGehee?

Q. Yes, sir, I am not asking for figures, I want the comparisons. How would the mileage on a movement of that sort be ascertained in the figures upon which Exhibit 26 is based?

A. My understanding is that the company, in its regular statistics from which Exhibit 26 was derived, figures short line mileage between points, or is governed by certain routing circulars.

Q. I am not speaking about the different lines of railroad.

A. They have routing circulars on their own line, and I assume that the actual movement except for some physical obstacle would be by short line mileage.

Q. I will assume the movement is by the way of Newport, Little Rock and Pine Bluff, eliminating any question about the routing.

A. Yes, sir. Q. Where would they go to get the mileage upon which Ex-3752

hibit 26 is compiled?

A. They would take the mileage over the White River from the point where the shipment originated, through Newport, Little Rock and Pine Bluff to its destination, totalling the mileage, picking up or dropping the fractions at the end of the run.

Q. If a movement of that sort was broken up into three or four movements on three or four trains, and so appeared on the wheel reports, what effect would that have upon the relative mileage be-

tween—as shown on your figures and those on exhibit 26?

A. Picking up the fractional miles for each fractional part of that run-we picked up a fractional mile or dropped a fractional mile as the case might be; the way we figured, the run was cut up into sections, and the company figured their mileage from point to point, necessarily so.

Q. Trains #193, 194, 741, 742, 744, 745, and 743 to 746 inclusive, on the Central Division, I believe run from—those trains I mentioned carry freights, don't they, from points on the Greenwood

branch to Van Buren?

A. Trains 193 and 194 do not run on the Greenwood branch.

Q. They run from Van Buren to Wagoner, don't they?

A. Yes, sir.

Q. State the run of trains 741, 742, 744, 745, and 743 to 3753 746 inclusive?

A. Train 742 runs out of Greenwood in the morning, runs through Ft. Smith to Greenwood Junction, back from Greenwood Junction to Greenwood, a round trip on the Greenwood Branch; runs from

Greenwood to Greenwood Junction again, and on that trip goes down from Greenwood Junction to Van Buren, comes back out of Van Buren to Greenwood Junction, and goes down the Greenwood Branch to Greenwood, and I suppose, ties up for the night; that is the only train they have, and the different numbers are given it for the different portions of the run.

Q. How are freights hauled from the Greenwood Branch to points

in Oklahoma? Are they hauled on those trains?

A. Yes, sir. Q. There is a haul of seven miles from Greenwood Junction to Van Buren?

A. That is about the figure.
Q. What mileage do you charge in the State of Arkansas on that

haul?

A. My recollection is that on those little trains, that ran around Greenwood and Van Buren, and served the Greenwood Branch, there was very little business.

Q. That wasn't the question I asked you, Mr. Hamilton?

A. What little business those trains handled, we figured the mileage which the trains handled it, from the point on the Green-3754 wood Branch to Van Buren,

Q. That would be seven miles down and seven miles back?

A. Yes, sir.

Q. How does that appear on the records from which Exhibit 26

was compiled?

A. If the business was wavbilled from a point on the Greenwood Branch to a point in Oklahoma, the straight away mileage would be figured by the company.

Q. So on every ton of that class of freight, you have charged, by your method of figuring, 14 miles more mileage than appears on the

records of the railroad?

A. Yes, sir, but you will have to get a microscope to find the tonnage; there was so little on those trains.

Q. I asked you is that wasn't a fact?

A. Yes, sir, that is true. Q. There is a train that runs from Van Buren to Wagoner, isn't there?

A. Yes, sir, trains 193 and 194, you spoke of.

Q. Freight that originates at Van Buren and below there, and is pulled on that train, you take that into account in your figures, as a local train?

A. I don't know that I understand that.

Q. What I asked you is, how did you treat that part of the run of those trains that are scheduled to run between Van Buren and Wagoner; did you treat them as local trains in that territory?

A. It did seven miles of Arkansas work, and in apportion-3755 ing the train expenses, that is the wages, for instance, we apportioned seven miles of that expense to Arkansas.

Q. You charged that mileage up?

A. Yes, sir.

Q. On every ton of freight that passed over it?

A. Yes, sir, it got a seven mile haul in Arkansas.

Q. Is there a station between Van Buren and the state line?

A. No, sir.

Q. Is that mileage included in the records of the railroad company, upon which exhibit 26 is based?

A. It should be if the statement is properly made. Q. Did you investigate to see whether it did or not?

A. It is Arkansas traffic. We were told that the revenue and ton mileage in exhibit 26 were based on actual track mileage in Arkansas, and those seven miles are in Arkansas; if that isn't true, we have been misinformed on that particular.

Q. Those trains do not handle any Arkansas intrastate traffic do

A. No, sir, there is no station between Van Buren and the Oklahoma line at which they could deliver traffic, and if it crosses the line, it is interstate.

Q. All the traffic then is interstate?

A. Yes, sir, so far as Arkansas is concerned.

Q. Are they not in effect and practically, Oklahoma local trains? A. They serve seven miles of Arkansas, out of a total run of about 83 miles in Arkansas and Oklahoma.

Q. They carry no Arkansas freight except interstate

freight?

A. If there is no place between Van Buren and the line at which

they can deliver business, all the freight must be interstate.

Q. The only question about that is whether it should be treated as a local train in Arkansas; an analogous condition exists also, between Eudora and Calvit, on the Louisiana State line; train 345 and 346, between Eudora and Calvit don't do any intrastate business, do thev?

A. It is not exactly the same sort of situation.

Q. The only difference is that there is a little station near the Ar-

kansas line on the Arkansas side.

A. You are assuming a whole lot; I found they did quite a lot of business there; I found quite a lot of freight at Indian station, Arkansas, going to Eudora.

Q. Is there any local business there of any consequence? A. You mean business that originates or terminates there?
Q. Yes, sir, state the business you found there.
A. I would like to have the train sheets for that train; I can do it

if I have them.

Q. The point I want to particularly call your attention to, is this: whether there is any state business of any consequence at that station?

A. I recall a movement of logs to Eudora.

Q. I am speaking of state movement.

A. I recall a movement of logs there from Indian, Ark .-3757

I think they went up to Halley, if I mistake not; there was a log movement there; how great it was, my memory doesn't tell me now. I had that impressed upon me that there was a log movement there, and those logs were state business. I didn't finish my answer to your question in the first instance, as to whether I considered that this train was a local train in Arkansas, and whether the train you mentioned, running from Van Buren across the state line, was a local train in Arkansas; it is charged to Arkansas, the crew is paid local freight train wages; seven miles of its run is charged to Arkansas; I don't know how you could classify it otherwise.

There is this distinction between those two, that in the case of the train out of Van Buren, it served but seven miles in Arkansas, out of a total run in Arkansas and Oklahoma of approximately 83 miles, whereas this other train on the Calvit-Eudora Branch serves

in Arkansas, eight miles out of a total run of 37.

Q. Have you ever given any thought to the extent to which these, and any other discrepancies that you may know of as to mileage, growing out of the different methods you have adopted in making your figures, and those adopted in making up the figures in exhibit 26, would have upon the value of your figures, for the purpose of

showing the comparative cost as between local and through

3758 trains, and state and interstate business?

A. You say these and any other discrepancies in mileage between my basis, and the basis on which exhibit 26 is compiled; I think we all agree there was one discrepancy in one instance, that is the fractional hauls in short hauls, where we might pick up or drop the fractional mileage, where the railroad company would

figure straight away mileage between billing points.

Q. There may be cases in which a shipment might pass to a station where there was a switch engine kept like at Diaz, or such a case as I put to you at Little Rock. The wheel reports would show that the car was dropped at that station, and was put at one point, and the switch engine might put it a mile away; it might have been dropped at Little Rock at the Ft. Smith crossing, and the switch engine might have taken it to East Little Rock, and there it might have been taken up by the Valley train; the wheel reports would only show where it was dropped, and where it was picked up again; the railroad's mileage would be based upon the distance from the point of origin to the destination, and would take in all those intervals that might be covered by the switching?

A. Yes, sir, your proposition is just this, that one train would take the car into one portion of the yard in Little Rock terminals, and another train would take it out of another portion.

Q. My question is, whether those discrepancies growing out of those matters, in your judgment, would materially affect the relation between local and through business as worked

up by you and by the compilations shown by exhibit 26.

A. In the case of the Little Rock terminal, where a portion of the haul would be by a switch engine between extremities of the yard, and between the yards in the terminal, there would be no distinction in the manner in which interstate and state freight would be handled. A car from Van Buren to McGehee, would get the same service as a car from St. Louis or New Orleans.

Q. I will confine it to cars in trains, the handling of cars in trains, the mileage you attributed to the cars?

We figured the mileage for the distance the train hauled the A. We figured the mileage for the distance the train hauled the car; I don't see just what you are comparing it with; I thought I did in the first instance.

Q. Let me state it fully. Your figures relate alone to local

trains?

A. Yes, sir.

Q. And if they are based upon one theory or one method of investigation, which would include in your mileage a mile here or exclude a mile there, and fourteen miles here and seven mils there, which is not included in the ton mileage represented in the total

column of your exhibit I, wouldn't it have a material effect upon the result you reached by deducting your local per-3760 formance from the total figures based on exhibit 26?

A. I don't see where these differences would come in; I saw your illustration of the Little Rock terminal, and I think I can answer you on that proposition; I think the illustration I gave you would

serve very well.

Take a car from Van Buren to McGehee say; the mileage from Van Buren to Little Rock is 150 miles,—that is about the figure the mileage from Little Rock to McGehee is 102 miles, but one mileage is figured from Van Buren_into Argenta, and the second mileage is figured from East Little Rock to McGehee, and we will assume as your illustration did, that there is a distance between those two points which is switch engine mileage. As I see it, Mr. Roth's figures of mileage, represented in Exhibit 26, would be the straight mileage from Van Buren to McGehee, overhead, whereas, if we had that car in a train from Van Buren to Argenta, and in a second train from East Little Rock to McGehee, say a mile would be lacking in our figure; that comes under the head of fractional miles we would drop or pick up as I stated before.

I don't think that in itself, would make any appreciable difference in the figures compiled; I would like to see or apply to the indi-

vidual movements and work it out, before I expressed any 3761 opinion; it is a small matter, and in a statement of this size, wouldn't have a great weight.

Q. You are dealing in ton miles?A. Yes, sir.

Q. You obtained the total ton miles shown in your total column from exhibit 26?

A. Yes, sir.

Q. You obtained the ton miles in column one in the way you have described?

A. Yes, sir.

Q. Can you make a comparison in that way, can you arrive at correct results, by deducting the local performances from the total, for the purpose of ascertaining the ton miles, unless the mileage is ascertained in both ways on each column-on the two columns?

A. You mean ascertaining them the same way in both columns?

Q. Yes.

A. You would have to analyze the differences and reduce them to figures and see whether they would affect the percentages in which the ton miles were expressed, in order to give an intelligent answer to that. Those are give and take propositions, and I doubt extremely if there would be any material difference in percentages shown here when you got through.

Q. Suppose there was a material difference in the percentages,

what effect would it have on the result?

3762 A. It would affect the result just as it affected the percentages.

Q. It is a fact, isn't it, that Little Rock handled more state

freight in and out, than any other station in Arkansas?

A. That is a question I cannot answer; I assume that is so; it is a pretty big town; I don't know about that.

Q. It is a commercial center of the state?

A. Yes, sir, I think so.

Q. What would be your view about that, as to the quantity of

freight handled?

A. I should imagine Little Rock would handle the bulk of the business, if it was properly favored in the matter of rates, and can get into its own territory, and if Memphis and Fort Smith don't cut it out.

Q. I want to ask you if your figures and methods you have adopted in ascertaining the mileage, is not short from one to three miles on all state freight that is handled in and out of Little Rock, as compared with the mileage shown on the records from which exhibit 26 was compiled?

A. There will be a difference which we have discussed at great length, on business handled through Little Rock, but I don't see how there could be any difference on business originating or termi-

nating in Little Rock.

Q. Let me illustrate; take a shipment billed from Newport to
Little Rock; that is the way it would be charged so far as
3763 the mileage is concerned on the records of the railroad com-

pany, on the records from which exhibit 26 is made up, to the station of Little Rock, and I understood from your statement yesterday, if it should be dropped in Argenta yards, at Baring Cross or Ft. Smith crossing, that you would charge the mileage to the point where it was dropped?

That illustrates what might be the difference, and the same thing

can work the other way too, perhaps.

A. It is the mileage between your yards and your freight house, as I see it; I would have to know that the Company added that and figured its mileage to the freight house in making its statistics, but assuming that to be correct, there would be this difference between the company's statistics and our train figures, that is, the mileage from the yard at which the train was set out, over to the freight house, necessarily, because we do not have any train movement from the yard to the freight house; you would have to have a lot of that stuff to make a dent in 120,000,000 ton miles.

Q. Mr. Hillman testified that in the absence of actual gross

weights, he would take the percentage of car miles in each class of trains, that is local and through, and the percentage of train miles and add them together, and divide them by two, for the purpose of ascertaining the gross weight; he says that would give you a per-

centage which each represented—I mean the dead weight— 3764 strike out gross weight-I want to ask you if you pursued

that method?

A. I think our exhibit K in the Iron Mountain case, states we used the car mile as a basis for the division of expenses; Mr. Hillman was referring to; we did not pursue that method; we used the car miles.

Mr. HILL:

Q. What was that, maintenance of way or maintenance of equipment?

A. Maintenance of way, I think; our Exhibit K shows that we used car miles, after applying a certain arbitrary to the engine miles to make them a car mile equivalent.

Mr. MOORE:

Q. Have you ever figured the difference, either in per cents or any other way, that you have allowed under the methods pursued in making up the exhibits filed by the state in this case, in favor of local trains, on account of the increased expense of operating that class of train over the through trains; I know you have made a 50% allowance here and a 50% allowance there on certain accounts, maintenance of way and some things, and maintenance of equipment and other matters, but have you given any thought to and can you state to me, either the actual or approximately what the difference is, we will say in per cents, or if you can express it in any other way that would express it better, what difference there is,

and what allowance you have made, total allowance, in favor of local trains, on account of the increased expense in operat-

ing them?

A. You say in favor of local trains—you mean a charge against local trains?

Q. Well, against, then.
A. It is necessary in order to do that, to see what our arbitrary addition, in each class of expenses where an arbitrary addition was made, figured out in dollars and cents would be; that is, to make figures without the arbitraries and then with them, and then that would express it to you.

Q. Have you ever done that?

A. No. sir.

Q. Are you prepared to state what allowance or charge, if you express it in those terms, has been made against local trains, on account of the increased expense?

A. Any answer to that would be the result of calculation such as I have just described, and I have not made that calculation; anybody can make it from the basic data given in these exhibits.

Q. I will ask you further, have you any idea—any approximate

idea—of the difference if any, that has been made as to the expense of conducting state over interstate business, in the methods adopted in the exhibits filed in this case?

A. Do you mean what our results are in working out the extra

cost per ton per mile on state and interstate business?

3766 Q. Yes.

A. I perfer to make that figure and give it to you this afternoon.

Q. Can you work it out there just in a minute?

A. No, sir, it takes some calculations, and I want to prove the agures carefully.

Q. I believe vou were going to figure out the cost per ton mile?

A. As I understood your question, it was the cost per ton mile,

as per our exhibits, for local and through trains?

Q. Yes.

A. Exhibit J shows in column one, line six, under the head of train cost, total train cost for local trains, as we have arrived at them, using the various bases set forth in Exhibit K, which is an explanatory exhibit. Dividing that figure of \$644,008.78 by the total ton mileage of revenue freight of local trains shown on Exhibit I, which is 13,470,970, we find the local train costs per ton per mile to be 4.781 mills; taking the total train costs for through trains,

shown in column two of Exhibit J, line six, namely, \$1,948,289.55, and dividing it by the total ton miles of revenue freight on through train shown on Exhibit I, 107,050,490, we get an average cost per ton per mile for through trains of 1.820 mills; the excess of the local train costs over the through train costs per ton per mile, is expressed in percentages,

169 670%

Q. That is the difference in cost per ton per mile without any discrimination as between classes of freight?

A. That is the average for train costs only.

Q. What is the difference in the cost per train mile as between

the local and the through trains?

A. That was not in your question this morning; I will have to figure that. Dividing the train costs shown on exhibit J under the heads of local and through by six times the local and through train miles shown on exhibit I, in order to get a six months figure, I find the average cost per train mile on local trains to be \$1.52; on the through trains, \$1.65.

Q. If you want to ascertain the increase in the state revenue provided by the railroad tariff of November, 1908, as compared with the Arkansas Commission tariff, what method would you pursue?

A. You are talking now of revenue derived from traffic, not rates published in the tariff; the concrete result of moving the traffic under those two sets of rates?

3768 Q. Yes.

A. As the Commission's distance tariff is entirely on a mileage scale, the comparison would have to be on that basis; you would have to take the actual movements under the railroads voluntary rates, and apply to these actual movements, waybill by way-

bill, shipment by shipment, the rate for that distance on that commodity which would apply under the Commission tariff, and in that way, get a comparison; that is the only comparison there could be.

Q. That is the only way in which it could be ascertained?

A. If you desire to compare the result of applying the standard distance tariff which has been enjoined to the traffic moving under the railroads tariff from November, 1908, the comparison would necessarily be shipment by shipment, rate by rate.

Q. You would have to compare the new tariff to the business for

the last half of 1907?

A. You asked me to compare two tariffs in the abstract?

Q. I am speaking now concretely, with reference to this case; therefore, if you want to apply the railroad November tariff to the business that was done in the last half of the year, 1907, you would do it in the way you have stated, by applying it to the business that moved during that period?

A. It could be done in that way, yes, sir, but if you were endeavoring to ascertain the average revenue per ton per mile or the two

periods, of course, there would necessarily be the assumption that the various commodities moved in relatively the same volume, in the last half of 1907, as they did during the period which you were comparing, but you have not said yet, which period you want it compared with.

Q. What I am speaking of, is how you would ascertain the increase of revenue from the same business which was moved in the

latter half of 1907, under the latter schedule of rates?

A. If you wanted to know what the rates under standard distance tariff would be an any commodity, or the revenue derived from moving any commodity under that tariff, you would have to apply the rates of that tariff to it.

Q. There have been some other methods suggested and I wanted

to see what yours would be.

That is all, Judge Hill.

Redirect examination, Mr. T. A. Hamilton. 3770

By Mr. HILL:

Q. Some question was raised as to your salary when you were working for the Iron Mountain road; if you have no objection, I would like for you to state what your present salary is, with Haskins & Sells?

A. They are paying me this year \$3,000.

Q. Referring to these work sheets that you turned over to the Iron Mountain, representing the work on the October movement, some questions were asked you, seeming to imply that you had not carried forward memoranda that you should have carried forward.

I will ask you what was the purpose you had in making up those sheets; were you doing that for the Iron Mountain or whom were you doing it for?

A. My instructions were to secure, for the information of the

state's attorneys in this matter, the ton mileage performance of local freight trains on the Iron Mountain, to do it as expeditiously and as economically and as accurately as I could. I had no other object in view, than the accomplishment of that purpose.

Q. In making up these work sheets, you didn't do it with 3771the expectation of turning them over to the Iron Mountain

at all—that was not the purpose?

A. No, sir, they were compiled for the use of the attorneys for the state, subject to their disposition.

Q. You turned them over to them subsequently as a mere matter

of helping them in their work?

A. Yes, sir. Q. Mr. Moore asked you, as I understood him, about the excess costs of the local over the through trains; have you also the excess costs as shown, of the state over the interstate?

A. For the Iron Mountain? Q. Yes, as shown in your October movement, the same as Mr.

Moore questioned you about?

A. The figures for which Mr. Moore asked, and to which you refer, were the excess cost per ton per mile of all business on local trains over all business on through trains, and I gave him a figure based on the train costs shown in columns one and two, line six, of exhibit J, divided by the total ton miles of each class of train, as shown in Exhibit I.

Q. That didn't show anything but the train costs, didn't show

the maintenance of way and equipment, did it?

A. Yes, sir, it showed everything but traffic expenses, station expenses, loss and damage freight, supervision and general, accruing to the directly allocated portions of transportation expense; the portion of general expense following those previously allocated; those were not train costs, they were divided directly between state

and interstate.

- Q. This 162 I believe it was you gave Mr. Moore represented all the train costs and everything except the matters you have just mentioned?
- A. It represented the division by the total ton miles on each class of trains, of the figures shown in columns one, and two, line six, exhibit J.
 - Q. Making it in round numbers about three to one.

A. It was 162.70%, as I recall it, excess.

Q. Give the statement between state and interstate.

A. The excess cost of state over interstate business per ton per mile is 68.11%.

Q. That takes in everything?
A. That takes in all the costs of state and interstate business, as represented by the figures in columns 3 and 4, of exhibit J, shown on line 8, total cost of intra and interstate business, divided by the interstate and intrastate ton miles, shown on exhibit I.

Q. These are all referring to freight, of course?

A. Yes, sir.

Q. Now, give the excess revenue of state over the interstate?

A. The figures which I have given, as I have explained, were based on these six months exhibits, but using the October ton miles.

Q. That was the same basis you gave Mr. Moore yesterday?

A. Yes, sir.

(Two preceding questions and answers read, at the request 3773 of Mr. Moore.)

Mr. HILL:

Q. Is that answer right?

A. Yes, sir, as to what I have done; that is the basis on which I made the figures for Mr. Moore yesterday; in talking of train costs, it may make some slight difference if I took the six months ton miles, figured on the basis of the six months ton miles, the excess cost of intra over interstate business per ton per mile, considering all costs shown in Exhibit J, is 86.9%.

Q. And figured the other way?

A. My figure was in error, I applying only the month's ton miles to the six months' expenses.

Q. Give us the revenue.

A. Exhibit 5 shows the average revenue per ton per mile for the six months period from state business to have been 13,377 mills per ton per mile, and from interstate business, 6.75 mills per ton per mile; the excess of the intra over the interstate, expressed in percentages, is 98.18%.

Q. In round numbers, 98% more revenue and 86% more expenses

of the state over the interstate?

A. Yes, sir.

Q. Now on this lap-over proposition that you explained in your cross-examination of one month's business on the other on your October train movement; you explained fully, as I understand, why you thought one would equalize the other; did you have any statistics in mind to bear out that figure?

3774 A. Yes, sir, the Cotton Belt figures.
Q. I wish you would give those?

A. Exhibits 19 and 20, which cover the test made under Mr. Kimbell's direction, show the ton miles of intrastate freight transported as developed by Mr. Kimbell's men riding the trains, to have been 1,381,303, and the ton miles of interstate freight ascertained in the same way, that is the actual movement, to have been 29,087,265; of the total movement as ascertained by Mr. Kimbell's men on the trains, the intrastate was 4.534%, the interstate 95.466%.

The company's statistics which I understand are on the same basis as Mr. Roth's exhibit 26, regularly compiled for the purpose of their own information, show that during the same month, Oct. 1908, the ton miles of intrastate freight were 1,372,093, and of interstate

freight, 28,952,919.

The percentage which the intrastate freight ton miles taken from the company's regular statistics, compiled on the same basis, I understand as exhibit 26, was of the total ton mileage so compiled, 4.525%, and the interstate freight was 95.475%.

If those percentages had been handled in the way we ordinarily

handle them, and in the way which we have handled them in our statistics here, running them out but two places-when I say statistics. I mean exhibits we have filed in the case-running them out two places, the percentage figures would have been identical

in each case for the actual movement, and the movement as 3775 shown by the company's statistics, as they are shown on this memorandum I have here, the difference is nine one thousandths of

one per cent. Q. How many decimals do you have to carry forward to find the

difference?

A. Three decimal places.

Q. That represents the lap over on the Cotton Belt?

A. That would indicate that he actual lap over took care of itself, as I suggested in my cross-examination.

Q. With the exception of how many thousandths?

A. 9 one thousandths of one per cent.

Q. I wish you would attach that as an exhibit?

A. Same is hereto attached and marked for identification as exhibit "E-1" and is as follows:

For Exhibit "E-1." see Volume 9, page 5857.

3776 Mr. MOORE:

Q. Do you understand that the figures on these two roads, the Cotton Belt and Iron Mountain, are compiled on the same basis?

A. I understand they are compiled from the waybills as they are in the case of the Missouri-Pacific statistics; I feel quite safe in the assertion that they are not compiled for the auditor's ordinary purposes by riding the trains.

Q. What I want to get at is if one is not on the received basis in all accounts, and the other the forwarding basis in all accounts, and if there would not be a difference resulting from the use of those

two bases?

A. That might develope, I am not prepared to say now. I am quite sure that the company's regular statistics are not compiled by riding the trains.

Mr. HILL:

Q. Speaking further of this lap over, if there were any differences in that, would they affect any of the other statistics shown on the other exhibits, other than the ton miles between state and inter-

A. I take it you refer to exhibit I, which gives all our statistics

in the case of the Iron Mountain.

Any lap over of ton mileage or any discrepancy between the basis on which the ton mileage shown in exhibit 26 and those shown on exhibit I were compiled, would affect nothing but the ton mileage,

and the dependent percentages of the car miles, caboose 3777 miles, etc., there would be no lap over; that is the actual movement during the month, caboose miles, cars and engine

miles.

Q. The lap over that has been gone into at great length, only goes to the ton mile statistics you finally use, and would be erroneous only to that extent, but not to the preceding bases used?

A. Not to the other statistics used in Exhibit I; it is a ton mile

proposition pure and simple.

Recross-examination.

By Mr. Moore:

Q. The car mileage every month would depend, I suppose, wouldn't it, upon the amount of traffic handled during the month?

A. I think that would be a fair assumption.

Q. If there was a large amount of traffic handled one month, and a small amount in another month, probably the car mileage would be changed?

A. Yes, sir, I don't suppose they would haul their cars around for amusement; I suppose they would let them stand idle, that would

be cheaper than to haul them around.

Q. On what basis, do you understand the records kept by the Iron Mountain Ry. Co. of freights handled and upon which Exhibit 26 is based, is made up.

A. I think we went over that before; I can give you that 3778

information as I recall it.

Q. What I mean, and I will call your attention directly to it, is the record of freights that are received as distinguished from freights forwarded by the railroad company?

A. It is partly a forwarding and partly a receiving proposition as

I understand it.

Q. Just explain that fully?

A. It is a forwarding proposition in this, that the Iron Mountain takes into its accounts, and into its statistics, all waybills made during the month at stations on the Iron Mountain-Missouri-Pacific system; it also takes into account waybills made on other roads, perhaps, in preceding months, receiving during the current month; all waybills received from connecting lines; they may be dated in the current month or preceding month; it takes in all its forwarding business, and such business as received from connecting lines during

Q. How does it treat business originating on another line, passing over its rails in the State of Arkansas, delivered to another line and

delivered to its destination?

A. Where the Iron Mountain is intermediate carrier?
Q. Yes?
A. Without reference to the memoranda I have made, I couldn't say whether that settlement is made before the delivery is effected by the ultimate carrier or not, or whether it is carried by the Iron

Mountain as freight in transit, on the basis of the proportion they expect to receive for their haul in the ultimate settlement; I think the latter method is the one pursued.

Q. If the entry on the record is based on the settlement, then it would appear of the date that the last carrier, that is the connecting carrier, to whom the goods was delivered by the Iron Mountain Road would make its settlement with the Iron Mountain road?

A. Yes, sir, I recall that Mr. Roth stated that he took such intermediate business from company's in transit sheets, and I infer from that, that such intransit business is in his exhibit 26, his memorandum states that fact, as I recall it.

Q. Do you mean that Mr. Roth's memorandum states that his entry on the accounts and on the records of the railroad company before the settlement is made by the last connecting carrier?

A. Mr. Roth's memorandum states he took that business from the company's in transit sheets, that is the only solution I can see.

Q. What do you understand that to mean?
A. Just as I have stated.
Q. You haven't said it in a way that is intelligible to me; at what period, with reference to the shipment itself, from the time it originated until the time it was finally delivered at destination; would that be entered on the accounts of the railroad company?

A. It would be the period in which it passed over Iron 3780 Mountain rails, that would take it into the Iron Mountain's accounts, regardless of when it was billed or delivered.

Q. Didn't you have yesterday, a copy of the statement that Mr.

Roth furnished you?

A. Yes, sir, I referred to it just now; it is up stairs, I can get it in a minute.

Q. I wish you would do so? Just read whatever you have there. A. Mr. Roth gives the basis or the source of his information in this manner: "System business from the company's journals interline received from company's B. report; interline forwarded from connecting lines abstracts and our October in transit sheets; interline intermediate from connecting line abstracts."

I see from his fourth statement, that that is settled or taken into

the company's accounts as settled for, by connecting lines.

Q. Your impression was erroneous about that?
A. Yes, sir, I recalled the reference to in transit sheets.
Q. Do you know what system is in vogue on the Cotton Belt sys-

A. No, sir, not in that detail; they have abandoned the antequated freight journal system, which is still in vogue on the Iron Mountain, and are checking one agent against the other.

Q. In order to avoid any misunderstanding about the effect of your testimony, I want to call your attention to my understanding of your statement in answer to my question yes-

terday, as to the relative costs per train mile of local and through trains; I understood you to state yesterday that the cost per train mile per mile of the through train was \$1.65 and for the local train, \$1.52, was that correct?

A. We made these figures here yesterday and proved them at the time, and the record will show the cost per train mile was the result of dividing the train mile into the total cost; there is no

analogy between the figures yesterday and those today.

Q. What I intended to ask you was if you intended to modify that statement?

A. This refers to ton miles and the other to train miles.

Q. I am just asking you to avoid any confusion about the matter.

A. There is no relation—one is the train unit and the other is

the ton unit.

Q. You still adhere to the statement made yesterday as to the

train costs between local and through trains?

A. Those were the average train costs between local and through trains; I think those figures were right: that was the result of dividing train miles into train costs—not the ton miles.

Q. How long would it have taken the accountants of the railroad company to have checked the figures prepared by you and used by you in your exhibits in this case, without your

3782 work sheets?

A. We couldn't have gotten any figures unless we had

assembled them on the work sheets.

Q. What I mean is, if you had not furnished the railroad company with your work sheets, had simply put the figures that appeared upon the sheet upon the page containing the results of your figures last February and March, how long would it have taken them to go over and check those, without the aid of the work sheets?

A. By working with an average of four assistants, we put those figures together in a little over four months; had the railroad put as large a force and as equally competent one, as I fortunately had to assist me, it seems to me they should have accomplished it in at least the same time, perhaps shorter; we were not familiar with the records when we started in.—that is not familiar with the present system of filing, things of that kind, although we had first hand knowledge of Iron Mountain conditions, Mr. Wright and myself, it dated back a little, and we had to familiarize ourselves with the road to a certain extent; it seems to me, that a group of men taken from the company's present employees, should have done the work as quickly.

Q. Didn't the railroad accountants furnish you with their data and everything they used in their work in making up their ac-

counts?

A. Mr. Johnson gave us access to all their figures.

Q. Didn't you expect in making up those sheets, that the railroad accountants would want them and you would let them have them?

A. I prepared them subject to the disposition made of them by

counsel for the state; I had no voice in the matter.

Q. Didn't you at that time contemplate and expect they would be called for and that the accountants of the railroad company would be allowed to use them for the purpose of tracing and checking your work?

A. It appeared to me, if they desired to check our figures, having declined or neglected the opportunity to join in a joint compilation, that they might have wanted to check them.

Witness excused.

It is agreed between the counsel, that Mr. Hamilton may be examined in re-direct examination, in regard to the matters that were brought out on cross-examination, touching the October car movement in the time to be used by the plaintiff in rebuttal.

T. F. WHARTON, being called on behalf of defendants, 3784 testified as follows:

Direct examination.

By Mr. HILL:

Q. Have you prepared some statistics based on the Interstate Commerce reports, as to the increased efficiency in train performances, tons accomplished, etc.?

A. Yes, sir. Q. I wish you would state what you have, and introduce it as an

exhibit?

A. Same is hereto attached and marked for identification as Exhibit "F-1" and is as follows:

For Exhibit "F-1", see Volume 9, page 5859.

A. This is an exhibit of freight and passenger statistics, 3785 covering a period of ten years, ending with the year ending June 30, 1907, for the entire United States, for the Interstate Commerce Commission Group 8, for the St. Louis, Iron Mountain & Southern and the St. Louis Southwestern Ry. Companies.

It shows in the first column the ton miles of freight carried; these are expressed in millions, the first figure representing 95 billion, 139 million. As to the ton miles carried in the United States, this indicates an increase of 148.7% in ten years; that is the increase of the year ending June 30, 1907, over the year ending June 30, 1897.

The ton miles carried in group 8, show an increase of 174.8%

in the ten years period.

On the St. Louis, Iron Mountain & Southern, there is an increase of 139.1% in the ton miles in the ten years.

And on the St. Louis, Southwestern, an increase of 117.1%. The second column gives the freight train miles in millions; the first figure represe-ing 464 millions. Down under Iron Mountain & Southern, we have had to express that in fractions, the fraction meaning 4 millions 400 thousand, compared with six million, four hundred thousand in 1907.

The same is true of the Cotton Belt, the freight train mileage would be expressed as 1 million 2 hundred thousand,

and one million, four hundred thousand.

These figures indicate an increase in the train mileage which hauled the ton miles of freight just referred to, of 35.5% in ten years in the United States, 46.7% in ten years in group 8, and 36,2% on the Iron Mountain, and 14.3% on the St. Louis Southwestern.

The third column, gives the average train load in tons, and indi-

cates an increase in the average loading of trains of 75% in the ten years, in the United States; of 75.3% in group 8; of 75.6% on the Iron Mountain & Southern, and 83.7% on the St. Louis, Southwestern.

The statistics used in the third column are those for the United States and group 8, as shown by the Interstate Commerce Commission report. We have not divided ourselves, the train miles into ton miles to get that figure, but have taken the Interstate Commerce Commission figure itself; in the case of the St. Louis, Iron Mountain & Southern and St. Louis, Southwestern, we made those figures by dividing the train miles into ton miles into ton miles carried.

Q. You are setting up by your own calculation on these two roads, that calculation made by the Interstate Commerce Commission

comparisons in the United States and group 8?

A. Yes, sir, the Interstate Commerce Commission does not give the average train load on each road, but only for the

3787 United States and each group.

The 4th column gives the average receipts per ton mile in cents. I think those receipts explain themselves. They have practically remained stationary, during the entire period, the changes being very small; I might say the percentage at the bottom of the 4th column, means seven ten thousandths of one percent, the way it is entered there.

In the 5th column, is given the number of passengers carried one mile in billions, the first figure for instance, representing 12

billions, 256 millions.

The passenger figures indicate an increase in ten years in passenger miles for the United States of 126.1%; for group 8, of 252%; on the St. Louis, Iron Mountain & Southern, 154.2%, and

of the St. Louis, Southwestern 172.6%.

The sixth column shows the passenger train mileage in millions, the first figure for instance, representing 335 millions, and the first figure under the head of expenses for instance, representing seven hundred thousand, the decimal point indicating that these figures for passenger train mileage, show an increase in this mileage in the United States of 51.9% in the ten years; under group 8, 100/7%; on the St. Louis, Iron Mountain & Southern, 71.4%,

and of the St. Louis, Southwestern Ry. Co., 71.4%.

3788 The seventh column shows the number of passengers per train mile; that indicated for the United States an increase of 37.8% in the passengers carried per train mile; under group 8, of 61.5%; on the St. Louis, Iron Mountain & Southern, of 44.4%, and on the St. Louis Southwestern, of 57.5%.

The figures in the last column, are average receipts from passenger per mile in cents; these show but slight variation in rate during the

period.

Q. Does that complete the explanation of it?

A. Yes, sir.

Q. Make that an exhibit to your testimony.

A. I do so, and same is marked for identification as Exhibit "F-1", and is as follows:

For Exhibit "F-1", see Volume —, page —.

O. Have you read the opinion of Judge Farrington, in 3789 the case of Southern Pacific v. Bartine, 170 Federal Reporter, and studied the formula that he has adopted there for working out the division between state and interstate?

A. Yes, sir.

Q. Have you prepared an exhibit using Judge Farrington's formula as applied to the statistics in this case?

A. Yes, sir. Q. I wish you would explain it and introduce it as an exhibit. A. There will be two, one for the Iron Mountain and one for the Cotton Belt, which are marked for identification as Exhibit "G-1" for the Iron Mountain and Exhibit "H-1" for the Cotton Belt, and are as follows:

For Exhibit "G-1", see Volume 9, page 5861. For Exhibit "H-1", see Volume 9, page 5863,

Q. Explain how you made the exhibit? 3790

A. Both exhibits are made in exactly the same manner, one for the St. Louis, Southwestern and one for the Iron Mountain,

and both cover six months, ending Dec. 31, 1907.

Judge Farrington, as I understand the case, only passed on the question of freight rates and freight expenses, and in compiling his figures, used the ton mile basis, assuming that the transportation expenses would be three times as much per ton per mile for the state business as for the interstate, and that on all other expenses, the cost would be the same per ton per mile; these figures have been compiled on that basis, using the Iron Mountain and the Cotton Belt ton miles and classification of expenses.

Q. The formula will show for itself; state what is the return on the property if Judge Farrington's formula was applied to the Iron

Mountain statistics in this case?

A. Assuming that the passenger business netted the same earnings on interstate business, the return on the property of the Iron Mountain would be 7.37%, and on the St. Louis S. W. would be 11.42%.

Q. That is on all business?

A. Yes, sir, all intrastate business in Arkansas.

Q. Have you had prepared a copy of the original affidavit of Mr. E. K. Vorhees, filed on the application for a modification of the injunction?

3791 A. Yes, sir.

Q. I wish you would attach a prepared copy of that as an exhibit?

A. I will do so, and same is marked for identification as exhibit "I-1":

For Exhibit "I-1", see Volume 9, page 5865.

It is agreed: That the record will not be encumbered by copying the Vorhees' affidavit, as each side have their respective copies, and only one will be filed to take the place of the original.

Cross-examination.

By Mr. MOORE:

Q. How do you account for the falling off in the receipts per ton per mile during the period covered by your exhibit of freight and passenger statistics compiled from the reports of the Interstate Commerce Commission, at the same time that the business seems to have increased throughout the country?

A. Well, I don't account for it particularly, except that the original rating is this rate; I don't believe that would be affected by any great increase or decreased rate, the average rate per ton per mile.

Q. Wouldn't you think that the universal adoption of low state rates by state commissions and state authorities, would bring down those receipts in that way?

A. If the rates were universally reduced that might be possible.

but it would effect it only slightly.

3792 Q. In the United States there is a reduction of 4.9% durthe ten years?

A. Yes, sir.

Mr. Hill: I object to that;; Mr. Wharton has only put in evidence the facts; what his views are about them I don't know; I don't know whether he is qualified to handle those propositions or not.

Q. On group 8, there is a falling off of 9-1/2% in the ten years in the receipts per ton miles?

A. 101/2%.

Mr. Hill: I want to put in copy of the deposition of Mr. J. M. Johnson, in the case of Chapman & Dewey, Lbr. Co. v. Jonesboro,

Lake City & Eastern Railroad.

It is agreed that same may be introduced, subject to objection for incompetency, and that same will be filed to take the place of the original, and not copied.

(For testimony of J. M. Johnson see page 3793, this record.)

Mr. HILL: I want to put into the record all the original affidavits used before Judge Vandeventer; they may be part of the record, I don't know whether they would or not; I want to make an offer of introducing the original affidavits; if they are not already a part of the record we want to introduce them and offer them in proper time.

For affidavits see pages 133 to 451.

In the Circuit Court of Craighead County, Jonesboro District. 3793

CHAPMAN & DEWEY LUMBER COMPANY, Plaintiff,

JONESBORO, LAKE CITY & EASTERN RAILROAD COMPANY, Defendant.

J. M. Johnson (Vice-President in charge of Traffic of the Missouri Pacific & St. Louis, Iron Mountain & Southern Railways) first having been duly sworn, testifies as follows, on behalf of the Defendant:

Direct examination by Mr. J. C. Hawthorne:

Q. State your name, age, residence and occupation?

A. J. M. Johnson, age 64 years, residence St. Louis, Mo., occupation Vice-President in charge of Traffic of the Missouri Pacific Railway Co.

Q. How long have you been engaged in the traffic department of

railroads in this country?

A. Thirty eight years.

Q. Have your duties caused you to come in contact with the earning capacity of Railroads generally?

A. Yes.
Q. Are you acquainted with the physical condition of the Jonesboro, Lake City & Eastern Railroad Company?

A. Well, only in a very general way.

Q. That road is eighty three miles long; it has a terminal at Barfield on the Mississippi River and a branch that runs to Osceola on the Mississippi River, and the two branches connect at Osceola Junc-

tion and lead to Jonesboro. The branch and main line make 3794 up eighty three miles of road. Are you familiar with the costs of operating railroads generally, Mr. Johnson?

A. No, I cannot say that I am. I am not an operating official.

I am a traffic man.

Q. Take it that on a road eighty three miles in length eighty per cent of its tonnage is forrest products, would a two cent rate on rough lumber be compensatory for a haul of one to twenty miles?

A. I should say not.

Q. Are you familiar with the tariff formulated by the Arkansas Railroad Commission, known as Standard Distance Tariff No. 3, as applied to the Jonesboro, Lake City & Eastern Railroad Company?

A. I am familiar in a general way with the tariff of the Arkansas Railroad Commission establishing the rates on rough material. could not name the rates for the different distances, but am familiar

with the tariff in a general way.

Q. I hand you what purports to be a copy of the tariff put in effect in April 1st, 1907 and in 1908 made to apply on the line of the Defenda it Railway Company, being a rate on rough material in addition to shipment of percentages of that material out, the percentages varying according to manufacture of the rough material, this copy being embodied in the complaint of the Plaintiff.

A. So then this is a correct copy?

Q. I would like for you to examine that tariff sheet and state whether in your opinion as a railroad traffic man the rate of two cents would be compensatory on the shipment of lumber from points on the Jonesboro, Lake City and Eastern Railroad to Jones-

boro, or other Junction Points, a haul of fifty miles and

under?

A. It would not. The rates established by the Arkansas Commission as applicable upon so called rough material from the point of origin to the manufacturing point were made to be applied in connection with an outbound movement of the product. The rates of themselves into the milling points are not considered compensatory. In fact, they are very much less than the cost of transportation, but are made in connection with an outbound haul, under which the carrier receives a long haul and reasonable rate, so that the rate in the aggregate from point of shipment of the rough material to the destination of the product, considering the stock, is considered fair and reasonable.

Q. When there is an outbound rate of only two cents per hundred pounds on the product of the rough material, would that be compensatory to the road moving both the rough material and the out-

bound product?

A. It certainly would not. That would only mean a rate of four cents in the aggregate, including a stop, which would mean from two to four terminal movements, which, of course, could not be performed in connection with the haul at that rate with any degree of profit.

Q. Are you familiar enough to say whether a company so situated would sustain a loss if they undertook to move tonnage at those rates, two cents and two cents out on the product, forty per cent of

the rough material?

A. Well, it depends of course somewhat on the service performed on the outbound haul.

Q. I mean would the rates be compensatory in the aggre-

gate?

A. Well, as I said, you are receiving two cents for an inbound movement, fifty miles or less. I stated that that rate is not compensatory. Now, in taking up a movement, outbound, we must consider the distance and service performed on the inbound movement. If the inbound movement is of considerable distance, for which you receive only two cents, why I should say it is not compensatory.

If you take the freight, the inbound and outbound, in the aggregate, the finished product only amounting to forty per cent of the rought material, the rate then for hauling in and out would be 2 1/8c. per hundred on the two hauls. Would that be compen-

satory?

A. I understand the question to be this: would a rate of two cents per hundred on the rough material in from distances fifty miles and less plus a rate of two cents on forty per cent of the inbound

tonnage be compensatory for the single haul of the rough material in? Is that right?

Q. Yes. A. That would give you a rate of 2 6/10 in the aggregate for the service performed. I should say that would not be compensatory. Now, I want to say in connection with that that the Arkansas Railroad Commission has established rates for the transportation of lumber and lumber products between points in Arkansas. rates established by the Commission are assumed to be fair and reasonable compensation for the service rendered. Anything less than those rates are not considered fair and reasonable nor com-

pensatory, so this rate, being very much less than the rate established by the Commission, I should say was not a fair

rate for the service.

Q. You understand, Mr. Johnson, I judge you take into consideration in making that answer that they have established a lumber rate of five cents for fifty miles and under and the two cent rate, which you have read in the tariff handed you was conditioned upon an outbound shipment over the same line of forty per cent of manufactured product. When you speak of the rate being less than the reasonable rate the Commission fixed (or one presumed to be reasonable), do you refer to the local rate of five cents on lumber?

A. I refer to the regular scale, which has been established by the Railroad Commission of Arkansas. I do not know whether it is five cents or not. I know that it is much higher than two and one eighth cents. The point I want to make is this. The Railroad Commission has established what it called lumber rates. They represent a rate for the movement of lumber and its products between points in Arkansas when the shipment originates at a given point and is sent to another point, that service being complete within Those rates are separate and distinct from those rough material rates. They have no relation to rough material rates whatever. The Commission had no thought, so far as we are advised, of applying the rough material rates on a shipment which was com-They could only be used in connection with plete within itself. some subsequent movement upon which the Commission's rate would again be applied, that is, the rough material rates would be applied on the material coming into the milling point and when the shipment went out the Commission's rate applying on lumber

and its products would be applied, so these are not rates They are only rates representing part of a of themselves. movement.

Q. If the line of road so physically situated that the rate applicable to the haul that it would make out of the outbound tonnage would bring a return of only two cents on the finished product you would say that that rate combined with the two cent rate in on rough material would not be compensatory for the movement of the rough material alone from point of shipment, or a distance of fifty miles and under, to the point of milling?

A. That is a state movement. There is no two cent rate on out-

bound movement under the Commission's tariff for Arkansas.

Q. The question is based upon the assumption that the proportion of revenue that the Jonesboro, Lake City & Eastern Railroad Company would get on the outward movement would be two cents

on the finished product.

A. You could not get that under any tariff or tariff arrangement of the Arkansas Commission. I mean there is no tariff of the Arkansas Commission and there is no joint arrangement authorized by the Arkansas Commission that will give you as little as two cents. If you are going to apply the rough material rates in view of the outbound movement, that outbound movement must give you the lowest rate that the Commission makes. That may be their rate for fifty miles and less or it may be the proportion which would accrue to your line of a joint rate which is authorized by the Commission, and the joint rate authorized by the Commission, the proposed of the local rates.

Q. Mr. Johnson, in your experience as a traffic and freight man, have you studied the cost of movement of the different classes of freight, different kinds of tonnage, in determining what would be reasonable rates in the handling of different classes of traffic, and are railroad rates not based on the assumption that

they make fair return on cost of movement of that freight?

A. It is not very difficult to determine the cost of moving any particular commodity any particular distance. In fact, it might be said to be impossible to do it. We can only figure in a very general way. We know about what it costs to move a ton of freight one mile at the end of the year and we know what we have received for moving a ton one mile. Now, that is on the business as a whole, which, of course, is made up of hundred- of thousands of different shipments. It is impossible to know the exact cost of moving one ton of any particular class of freight for any particular distance.

Q. But in making the rates, is the general average of cost of moving a commodity taken into consideration in fixing a rate that will be compensatory in the moving of any particular commodity? I refer to the general average of cost, you have spoken of as shown by

your records at the end of the year.

A. No, rates are not made that way. By experience, we have some knowledge of about what we ought to have for the service in question. Rate making as a general proposition is largely a guess and the railroad people claim by experience they are very much better able to guess correctly than the other fellow. There are so very many factors entering into the cost that it is impossible to determine the cost of moving the different classes of freight, and we can only determine in a general way from experience about what is fair and compensatory.

Q. Now when you say that a two cent rate for the hauling of rough material a distance of fifty miles and under is not compensatory, do you speak with reference to your general experience in freight matters through the period of years that you say you have been directly connected with the traffic departments of railroads?

Let me explain there a little bit. A haul of that character represents in the first place a movement of the empty car from some point to the loading point. The car is switched into the train to be moved to the loading point, then it is set out at the loading point, then picked up again when loaded, then taken into point of destination and set out again. There are four terminal Those terminal moves are just the same moves besides the haul. whether the car moves fifty miles or whether it moves one hundred miles or two hundred miles, and those movements are really the expensive movements, especially in a large terminal. I do not know how expensive your terminals are at Jonesboro, but in a place like St. Louis or Little Rock we would figure on a terminal movement of that kind costing comething like two dollars. There would be eight dollars right there for terminal movements so these short hauls, we figure, can not be performed at anything like the rate per ton per mile that we could perform a long haul.

Q. You have likewise, Mr. Johnson, entered into that the free

time for loading and unloading those cars and the train expense;

which is considered, of course, in all those items?

A. That is the time when the car is out of service, you might sav?

Q. It is just as long for a short haul as it is for a long 3801

A. Just the same.

Q. In other words, you mention the terminal moves, free time. etc., as some of the elements that enter into the item cost?

A. All of those.

Cross-examination by Mr. Allen Hughes:

Q. I understand you to say, Mr. Johnson, that you cannot tell us what would make the actual cost for hauling a carload of lumber fifty miles, or a less distance, to Jonesboro. Am I correct about that?

A. I cannot tell what would be the actual cost of moving a car-

load of lumber to Jonesboro.

Q. You spoke of rates in force in Arkansas. If you have a Missouri Pacific or Iron Mountain tariff accessible that contains the rough material rates in force on that road, I would be glad to have you get it and let us know how those rates compa'e with these.

(It is agreed that the witness may read from these tariffs as if the tariffs themselves were placed in evidence.)

You have, Mr. Johnson, a tariff in Arkansas, semething like the one set out in the complaint, with reference to which you have already testified, which pertains to rough material rates. That is the lar question I asked you with respect to that rate was: How does

it compare with the rate on the Jonesboro, Lake City & Eastern Railroad about which you have spoken? How do 3802 your rough material rates compare with rough material rates on the Lake City Road, I mean rough material rates on lumber and forest products? By this I mean the tariff in complaint now before you. You can assume that to be correct as both sides agree that it is.

A. I understand this is the tariff in effect today on the Jonesboro, Lake City & Eastern Railroad. It is somewhat different from the tariff we are using. Our tariff provides for rate of twenty five miles and under two cents, over twenty five miles and up to fifty miles two and one half cents, while the Lake City tariff provides for a rate of two cents for fifty miles and less.

Q. Are there other differences that you note?

A. The Lake City tariff provides for a rate of two and one half cents for fifty miles to one hundred miles, while our tariff provides for a rate of three cents for fifty to seventy five miles and three and

a half cents for seventy five to one hundred miles.

Q. You need not pursue that comparison further for there are no distances in controversy in this cause exceeding fifty miles. Your rough material rates contemplate a certain amount of the tonnage of manufactured product after it is manufactured for outbound haul as all rough material rates do. Now suppose two lines participate in the outbound haul, how is the amount to which each of those lines is entitled determined? Suppose you haul the rough material into Nettleton and it was determined to ship this manufactured product, after being manufacured at Jonesboro, over the

Frisco to Hoxie and thence to some other point on your line, 3803 either north or south of Hoxie, say to Newport or to Corning, how would the proportion which the Frisco and the Iron

Mountain would have be determined?

A. That is not a supposable case.

Q. Suppose it did have to move over that route?

A. It would have to pay us the full tariff rate on lumber. The rough material rates can only apply on rough material going into the manufacturing point when the same line receives an outbound haul.

Q. I understand that perfectly, but suppose the same line re-

ceives the outbound haul?

A. There is no such case in the State of Arkansas and you can not have one. There is no such arrangement made. We would not arrange to give our product from rough material to the Frisco to hand back to us some place to continue the haul when we could take

the haul direct ourselves.

Q. I think you do not understand me. Suppose, for instance, the Lake City road hauls rough material into Jonesboro, to be manufactured. Suppose it hauls that manufactured product, reshipped, as the shipper is bound to do, over the Lake City Road and say it is going to St. Louis. The Lake City road would handle it to Nettleton for delivery to the Iron Mountain or to Osceola or Blytheville and give to the Frisco. How would that re-haul be figured. It must come in somewhere. It must pass over two lines, either over the Lake City and the Iron Mountain or over the Lake City and the Frisco. This is the question that I am asking you, suppose that a gross some of so many cents per hundred pounds

is charged for that haul, how is it divided between the two 3804 carriers?

A. An arrangement of that kind could be entered into, I presume, but it would have to all be made a matter of agreement and arrangement before hand. Today the manufacturer of lumber in Arkansas understands that when he brings in rough material that he can only have rough material rates applied when he ships the product out over the line which brings it in. If there is any diversion from that rule it must be pre-arranged.

Q. You do not understand. These rates only apply when it is to

be re-shipped to some other point on carrier's line?

A. Yes.

Q. Have no application when shipped on some other carrier's line?

A. They all understand that. In that way the inbound carrier

has a lien, you might say, on the outbound product.

Q. Do I understand you to say that if this shipment is hauled into Jonesboro the shipper is bound to give forty per cent outbound or pay the local rate? If it elects not to pay the lumber rate and does give a shipment to St. Louis and bills it over the Lake City road, you say the rough material rate has no application?

A. Not unless pre-arranged.Q. Why not?A. Because the rules do not permit it.

You have moved up state and interstate traffic. You have been talking about the rules of the Arkansas Commission. That is why I say the rules do not permit such movement. The rule of the Arkansas Commission says that rough material rates can only be applied in connection with the carrier that brought the ma-

terial in. If the manufacturer elects to forward that 3805 product by some other line then he must pay the full inbound local rate, the lumber rate, that is the lumber tariff rate. He knows it, and we have no trouble with our shippers because they all understand it. They understand that if they want to divert the product from our line on an outbound movement that they have to pay the local rate in. It would be possible for the Lake City road to arrange with the Iron Mountain for the movement of the product from Jonesboro to St. Louis and some consideration be given to an inbound rough material rate but that would have to all be pre-arranged and the line as a whole from Jonesboro to St. Louis would have to take care of the absorption.

Q. I understand the full tariff rate must be charged to St. Louis. I am not questioning that. I understand that the full tariff rate must be charged, but when the whole tariff rate is charged and two carriers have assisted in the transportation, one carrying it a part of the way and one carrying it the balance, is there any fixed rule by which the compensation is divided or is it a matter of agree-

ment?

A. It is a matter of agreement solely and there is no fixed rule. The general rule between all carriers is a mileage pro-rate but with



a short line that is not followed. They frequently allow a short line a much larger division than a mileage pro-rate.

Q. Has the Iron Mountain an agreement of that kind with the

Lake City during the last two years?

A. I could not say, I am not familiar with it.

Q. Who is familier with it?

3806 A. Mr. Perkins,

Q. What is his official title?

A. Assistant General Freight Agent.

Q. Where does he live?

A. His office is in this building.

Redirect examination.

By Mr. SMITH:

Q. We have been questioning you about rough lumber shipments when the finished product is shipped out over the line that brought in the rough material, and you indicate the Arkansas Commission tariff, the provision of which is before you in the complaint in this case, to apply on the outward shipment when it passes over the line that brought it in and is delivered to a connecting line, the connecting line taking it either to a point in the state or to a

point out of the State.

A. There are two rough material tariffs. While the rates may be the same in both tariffs their application is somewhat different. One applies on state traffic and one on interstate traffic. We do not have the same arrangement for joint rates between carriers on state traffic that we have on interstate traffic. Therefore, as a rule, the outbound movement of the product must be by the road which brings it in, the only arrangement we have for joint rates in the State being eighty five per cent of the locals. The manufacturer could not well afford to ship his product onto the second road, but would look for his rough material on the line of that road. On interstate traffic it is smewhat different. There is, as a rule, a general arrangement for through rates and divisions, and there are ar-

rangements where a rough material rate applies on the rough 3807 material in, the product of which passes out over two or

more roads.

Q. The tariff that you read the rates from in Missouri Pacific and Iron Mountain Tariff I. C. C. A-1127, and the rates you read were conditioned on the shipment out of the mill product over your line of road. Will you attach this tariff to your deposition as Exhibit "A"?

A. Yes.

Recross examination.

By Mr. ALLEN HUGHES:

Q. Under the tariff of the Arkansas Commission, when you haul inbound shipments of rough lumber twenty five miles and under the rate is two cents. Now what is the outbound rate on the manu-

factured product, box shooks, for instance, for this outbound haul, say from Jonesboro to St. Louis?

A. Twelve cents per hundred pounds.

F. P. Johnson, being recalled for cross-examination, testi-3808 fied as follows:

By Mr. HILL:

Q. Mr. Johnson, have you your Ft. Smith terminal valuation, requested sometime since?

A. Yes, sir.

Q. Please explain what you have?

A. I have here a statement showing the property of the St. Louis Iron Mountain & Southern Railroad, embraced in our Ft. Smith terminals, showing the mileage, value per mile, total assessed value for the years, 1907 and 1909, and the differences between the two periods.

I also have a statement covering the property within the limits of the City of Ft. Smith, that is not covered by the State Board of

Assessors.

Q. That is all shown on your statement?

A. Yes, sir.

I also have a blue print, if you want that as an exhibit, of the Ft. Smith terminals, located within the City of Ft. Smith.

Q. Yes, sir, I want that; they also show the terminals adjacent to the City that wasn't within the limits of the Ft. Smith terminals. A. The statement of property does, but the blue print doesn't;

it merely shows the line within the city of Ft. Smith. Q. I understand there is a connection between the Ft. 3809 Smith Suburban with your line, but that connection is out-

side the city limits, but there is now a physical connection?

A. Yes. sir.

Mr. MOORE:

Q. When was that made?

A. I don't know when the date was; my testimony was sometime ago, that they were not connected in 1907.

Q. You attach those as exhibits?

A. Yes, sir, the same are marked for identification as Exhibit "J-1" and are as follows:

For Exhibit "J-1" see Volume 9, page 5880.

Q. You have prepared exhibits for your company in the 3810 Oklahoma rate case, have you not?

A. I made up the statement that accompanied the affidavit.

Q. What disposition did you make of the Ft. Smith Terminals in the Oklahoma rate case?

A. We didn't make any disposition of them in the Oklahoma case, they are not included there at all.

Q. Aren't included in any way?
A. No, ir.

Q. What do you do with this expense growing out of that trackage between Van Buren & Ft. Smith in the Oklahoma case?

A. Any expense that is incurred on the line that enters into the State of Oklahoma, is charged to the State of Oklahoma, but the terminal expense at Ft. Smith, this station and yard service, is all charged to the state of Arkansas.

Q. You have not treated that as if Ft. Smith were Memphis to

Oklahoma?

A. No, sir.

Witness excused.

It is stipulated, that the statements of the Rock Island Railroad, under the court tariff may be introduced by the state up to the time of final submission, just as the statements are received by the state, and when all are in up to the final hearing, that they may be compiled together to make one statement, which may be filed, subject to objection as incompetent, irrelevant and immaterial.

3811 The State rests.

Mr. Moore: Mr. Laing, the Passenger Agent of the Cotton Belt, is here and I would like to have him state what was done in regard to increasing the passenger rates.

Mr. HILL: He will be your witness.

R. H. Laing, a witness of lawful age, being duly produced, sworn and examined, testified in behalf of the plaintiff in rebuttal as follows:

Direct examination.

By Mr. Moore.

Q. State your name.

A. R. H. Laing.

Q. Are you connected with The St. Louis Southwestern Railway Co.?

A. Yes, sir.

Q. In what capacity?

A. Assistant General Passenger Agent.

Q. How long have you held that position?

A. About seven years.

Q. Mr. Laing, I wish you would state if any change or readjustment of interstate passenger rates was made at the time the rates in the State of Arkansas were reduced from three to two cents.

A. Yes, sir.

Q. Just state what the facts were as to the readjustment of passenger rates at that time, and again the readjustment when the passenger rates were restored to three cents.

A. Our through interstate passenger fares are all combinations of the local fares, and wherever a state fare is reduced it reduces all interstate fares in which it is a factor. For example: the fare from St. Louis to Texarkana is practially a combination of the fare from each station to the next station all the way down. You add all of those local fares between the different towns from St. Louis to Texarkana, together, and you have practically the through fare from

St. Louis to Texarkana.

So, if you reduce the fares between the stations in Arkansas, from three cents to two cents, you make a corresponding reduction in the fare—the interstate fare, from St. Louis to Texarkana. At the time the Arkansas state fares were reduced all intrastate fares to and from Arkansas were reduced, and almost all interstate fares through Arkansas—that is, originating in some State this side of Arkansas destined to a point beyond, were reduced. When the fares were restored to a three cent basis in Arkansas, corresponding increases were made in the interstate fares.

Q. Were the interstate passenger rates in January 1909 on the

same basis as the state rates?

A. Not from all territory. Q. I mean, in the State of Arkansas.

A. The interstate?

Q. Yes, I mean assume, now, Arkansas, and we will say Missouri-from Missouri to Arkansas: were the interstate 3813 rates on the same basis as the state rates?

A. From Missouri to Arkansas, yes.

Q. Was that generally the case-I just mentioned Missouri to

Arkansas to illustrate.

A. That was to a large extent the case everywhere with the exception of the fares from Texas to Arkansas. They were not increased until August, 1909.

Q. With the exception of that the changes were-

A. The fares had all been adjusted practically in January 1909.

Cross-examination.

By Mr. HILL:

Q. Mr. Laing, would the reduction of the state passenger rates in Arkansas affect your Texas excursions or your homeseekers' rates from St. Louis or Memphis?

A. Not the rate per mile-Q. That is what I mean.

A. —to any extent.

Q. Did the reduction of that Arkansas rate affect your California rates from St. Louis or Memphis to California?

A. The Arkansas did not, but the Missouri reduction did.

Q. We are talking about Arkansas; the Arkansas did not affect it?

A. No. sir. 3814

Q. Were the rates prevailing to Texas points, dominated by the M. K. & T., were they affected from St. Louis to Texas points?

A. On account of the Arkansas?

Q. Yes.

A. Yes, sir, they were—that is, in all my remarks here prior

to your questions I referred to the one way fares, which are always considered the standard basis in speaking of fares, and not of excursions.

Q. That did not affect the return trip, the round trip and excursion trip?

A. The change in the Arkansas fares affected the one way fares from St. Louis to Texas.

Q. Not to all of Texas, did it? A. Practically the entire State.

Q. Take points that were reached by the M. K. & T. in Northern Texas from St. Louis—I do not remember the points—you probably know all the towns there.

A. It affected Dallas, Ft. Worth, Waco-caused a decided reduc-

tion.

Q. And did it not cause a reduction in the rest?

A. No, it caused a reduction in—I would say every point in southern Texas with the possible exception of Denison and a small territory surrounding Denison.

Q. The same thing would be true of other roads that have a shorter mileage to Texas, the country dominated by them

3815 would not be affected by it?

A. The short line mileage to 75 percent of Texas is through Arkansas, from St. Louis.

Q. Well, what about the other 25 per cent?

A. The difference, the reduction in Arkansas fares from three to two cents, with no corresponding reduction in Oklahoma, Arkansas would still be the rate making-

Q. You are running into another factor now. We are not trying Oklahoma. It is enough for us to try one at a time. I am asking

about the Arkansas rate.

A. All fares from St. Louis to Texas naturally make through Arkansas with the exception of a small territory in the central Northern part of the State.

Q. You just stated about the 25 per cent: I want to know what

effect the Arkansas rate has-

A. I did not say that 25 percent was the exception. I said that the rates to at least 75 percent would go through Arkansas.

Q. According to my arithmetic that would leave 25 percent that would not be—

A. In doubt?

Q. -in doubt?

 A. Yes, sir.
 Q. Did the Arkansas two cent rate affect that 25 per cent which is in doubt?

A. A portion of it, ves sir. I would not undertake to say the exact territory without having some tariffs at hand. Q. Now, how about your rates to El Paso and Mexico?

A. The Mexican rates were affected, the one fare rates to Mexico.

Q. Are there any one fare rates to Mexico from St. Louis?

A. Yes, sir.

Q. You occasionally find a fellow who buys a straight ticket to the City of Mexico?

A. Yes, and we have a lot of fares that may possibly not be used,

but they are in print.

Q. One of these paper tariffs?

A. Well, they are printed to be used.

Q. We have had a good deal of acquaintance with paper tariffs in this case. I do not believe we have been introduced to one on the passenger side before.

A. There is considerable one way business from the States to

Mexico.

Q. From St. Louis to Mexico? A. Yes, sir.

Q. One way?

A. Yes. sir.

Q. Practically all of that is a return trip, is it not?

A. Well, our line does a comparatively little Mexican business. I would not say what the proportion would be.

Q. I suppose you are an expert on passenger rates and you 3817

know what the other lines did?

A. The rate question is somewhat different from the question as to the amount of business handled to or from particular sections

Q. Don't you keep a reduced rate on Mexico at all seasons of the year, or does not the Iron Mountain road, if your road does not? A. One way or round trip?

Q. Either way. A. Twice a month there are comparatively low round trip rates in effect.

Q. How many months? A. Two days a month.

Q. Is that not where nearly all of the traffic is handled, on those rates?

A. I do not think so, no, sir.

Q. How much of it is handled on those rates? A. I would not undertake to say without-

Q. Mr. Stone promised to give us some figures on that, but he has not done it yet.

Q. What is your rate from St. Louis to the City of Mexico?

A. I would not undertake to say, without the tariffs.

Q. What is your straight rate and what is your excursion rate?

A. That is another question I would not undertake to 3818

Q. Have you not seen a big advertisement of the Iron Mountain, forty seven dollars and some cents from St. Louis to the City of Mexico?

A. They frequently have rates.

Q. Have you seen that advertisement down here on Olive, and what is it, Sixth Street?

A. They have an office there at Olive and Sixth Street.

Q. You do not know the rates that they are running to Mexico?

A. I would not undertake to state that without a tariff.

Q. If they have a forty-seven dollar rate to the City of Mexico and return, about how much per mile would that be?

A. I would not care to answer that off hand. The Mexican business is a very small business; the volume of it does not amount to anything.

Q. Does not your Texas rate vary from twenty five to fifteen dol-

lars, sometimes as low as fifteen dollars a round trip?

A. I do not think as low as fifteen dollars. There is considerable Texas territory to which twenty five dollars-

Q. How much per mile is that?

A. That depends on the destination.

Q. You are an expert on these matters?

A. Well, it is a very easy matter to figure out. That will 3819 vary anywhere from close on to two cents a mile down to under one and one-half cent a mile.

Q. Do you mean that they have a variation in the passenger rate

down there?

A. It depends on the destination.

Q. Is that rate based on the cost of service?

A. No, sir, it is not.

Q. It is not on the cost of service?

A. No, sir.

Q. Is not that California rate based on the cost of the service?

A. I do not think so. Q. What is it based on?

A. It is simply an agreed rate. Q. What?

A. It is simply an agreed rate.

Q. An agreed rate?

Yes, there is no basis for it.

Q. No basis for it?

A. Some one thought that was the right figure and put it there.

Q. Is that the sum of the locals between here and California.

A. No, sir.

Q. These gentlemen have been teaching me that is the way rates are made.

A. That is the rule, yes, sir, but there are a few excep-

tions to the rule.

Q. Several in Texas, are there not?

A. As I said before, my evidence on the construction of rates related to one way fares. The excursion fares are only a comparatively small part of the business.

Q. Do you know the cost per passenger mile for carrying passen-

gers in Arkansas?

A. No, sir.

Q. Do you know what it is in Texas?A. No, sir.Q. Do you know what it is in Missouri?

A. No, I am not familiar as to the cost of doing business.

Q. The cost of doing business?

A. The cost of handling business.

Q. You make the rates generally? A. No, the State Legislators have been making them for us.

Q. Did they make the interstate rates for you?

A. Practically, yes sir.

Q. They did? How did they do it, on the sum of the locals, is

that the way?

A. The State Legislature says the rates shall not exceed so much per mile and that is our maximum; then we build combinations from that.

Q. Do you think that the State Legislature makes them 3821 on the cost of the service?

A. I do not know, sir.

Q. Does your office make them on the cost of the service?

A. No, sir, we do not.

Q. What do you make them on?

A. We make them so much per mile as a rule.

Q. What determines it, how do you figure that out?

A. Well, in the State of Arkansas we figure our rates three cents per mile.

Q. Not all of them, do you?

A. 98 per cent of them.

Q. Well, let us see about that; don't you have a lot of books to sell down there at two cents-

A. No, sir.

Q. —or two and one-half cents?

A. No, sir, we honor an interchangeable mileage credential.

Q. Don't you issue them?

A. We are a party to the arrangement under which travelers get a net two cent per mile.

Q. Do you not sell a good many of those books, or honor a good many of them?

A. We honor quite a number, yes, sir.

Q. Do you not sell two and one-half cent rate tickets there where the Rock Island and these other roads come in com-3822 petition with you?

A. We meet competition, but there are very few points between

which their fares affect us.

Q. The Iron Mountain meets them at a good many points, does it not?

A. The Iron Mountain will meet them probably more than we do. Q. You think that 98 per cent of your rates in Arkansas are

three cent?

A. Our one way fares, yes, sir. Q. I am not talking about one way: I am talking about the whole business. We are not taking it piecemeal.

A. One way fare is really the basis for everything and that is the

standard.

Q. I am asking you about what your fares are in Arkansas and you said 98 per cent are three cent: after calling your attention to this--

A. I would not say that on 98 per cent of our business we got three cents per mile.

Q. I did not think you would when you thought about it.

A. But you take our tariffs and the figures there, or 98 per cent, are three cents a mile.

Q. I have no doubt the tariffs would probably show 99.99 per cent-

A. 98 per cent I think is about right, 3823

Q. You have a good many paper tariffs on your passenger

business?

A. You must remember there is quite a difference between our way fares and the excursion business and the commutation business, under which the mileage credential business would come.

Q. That is a very considerable business is it not?

A. It amounts to a great deal more than any Mexican business would amount to with us. Off-hand I would say that possibly five per cent of our business-local business in Arkansas, is done on the credential plan.

Q. How much of it would you say was excursion?

A. I could not answer that without getting figures from the accounting department.

Q. How much do you think would be affected by meeting competition of these two and one-half cent railroads?

A. Very little of it is affected by that.

Q. How much do you think would be affected on the Iron Moun-

tain by that?

A. Well, any evidence I might give as to the Iron Mountain would be merely a guess, but I would say that I do not think there is over five per cent of their business that is competition with the Rock Island and Frisco two and one-half cent lines.

Q. Are these credential books good for interstate business as

well as state?

A. Yes, sir. 3824

Q. What per cent of your business is handled on those, interstate?

I would say about the same percentage as handled on the state.

Q. Is it not more than that?

A. No, sir, I do not think so. They are largely used by drummers who make comparatively short trips, as a rule.

Q. When you start out to make an interstate rate you do not have to bother with the state legislature then. I do not suppose: what con-

sideration moves you in fixing that rate?

A. Our one way fares are all combinations, using the local fares If our through fare is higher than the combinations it as factors. results in the passengers buying and rebuying and all we get anyhow is the actual combination, so we prefer to make the fare the combination of the two locals, as it may be, and handle the passenger through.

Q. Is that the way you actually do it? I understand why you prefer to do it and why you would not make it higher than that; but as

a matter of fact, is that the way you generally make rates?

A. On one way fares, yes, sir. Q. How about your other fares?

A. Excursion fares?

Q. Whatever else you want to call them, round trip, excursion, home-seekers, tourists.

A. The round trip excursion fares depend largely on the 3825 occasion for which they are authorized.

Q. There are chronic occasions for it, are there not?
A. Twice a month in Texas.

Q. How about your rate to Hot Springs; is not that chronic—don't you have low rates there from all over the country?

A. There are round trip fares into Hot Springs all the year.

Q. And your line to California goes through Arkansas, does it not?
A. Yes sir.
Q. Is it the cost of the service that you consider when you fix those Hot Springs rates and California rates?

A. Well, the Passenger Department, as a rule, does not figure on

the cost of the service.

Q. It does not? Are you sure of that, Mr. Laing?

A. They figure on the amount of business that can be secured.

Redirect examination.

By Mr. MOORE:

Q. You said your state tickets are made on a combination of the locals?

A. That is the standard one way fares are, yes, sir.

Q. Which represents the larger part of your business, the one way fare or the round trip fare?

A. The one way fare represents by far the greater part of 3826 our business.

C. E. Perkins, recalled, being duly sworn to testify in be-3827 half of the complainant in rebuttal, testified as follows:

Direct examination.

By Mr. MOORE:

Q. You have been on the stand before in this case?
A. Yes, sir.
Q. You are the General Freight Agent of the St. Louis Iron Mountain & Southern Railway, I believe, are you not?

A. I am.

Q. Mr. Ludlam, a witness on behalf of the state, testified in thic case that many interstate rates were made to govern large zones and the fluctuation of movement would affect the revenue materially; whereas it would not affect the expense in any sense; and, therefore, would destroy any connection or relation between the revenue and

I wish you would state if that is a correct view of the effect of zones rates which are illustrated in some of the exhibits filed by the

State in this case.

A. In my testimony, on direct examination, I have admitted, as has also Mr. Watson, the fact that numerous elements other than the cost of the service entered into our rate adjustments to a greater or smaller degree. In other words, in offering transportation for sale we are not always able to obtain the same amount of profit over and above the cost. There are two elements which enter into

our rate making other than the cost of service; one is commercial conditions and the other is competitive conditions.

In Exhibit 42, offered to show that the rates from the so-called "Defined territories" to what are generally termed "Texas common points" are on a blanket basis we have a condition in which the principles mentioned enter into our rate making to a considerable degree.

In establishing rates to this territory from St. Louis and the East we have a peculiar condition in that the Texas territory is entered by the transportation lines from three sides out of a possible four: the M. K. & T., the Santa Fe and the Frisco enter the State from the north; the St .L. I. M. & S., the Cotton Belt, the V. S. & P., and the T. & P. from the east; the Southern Pacific and also the Steamer Lines from the Atlantic Coast, enter from the south.

Dennison, Texas, a point in the extreme northern part of the state. and reached by the M. K. & T. and the Frisco, would produce the minimum haul for those two lines on shipments from St. Louis or the East. While a similar shipment to the same point of destination handled by the Illinois Central and the Southern Pacific through New Orleans, Houston and thence north, would offer the maximum service for that route.

A shipment to Houston, Texas, routed via the M. K. & T. the Santa Fe or the Frisco would offer nearly the maximum haul for shipments handled by either of these routes; while if routed via the Illinois Central or the Southern Pacific would yield the mini-

mum haul via that route.

This is true in nearly all parts of the State, and indicates very largely why a blanket zone in the state of Texas is necessary.

If the Cotton Belt or the Iron Mountain Railroads were the only routes to reach the State of Texas, the condition would be entirely We could then, and no doubt would, make our rates on a graded scale, making them higher as we proceeded south or southeast through the State.

Attention has been drawn to the rates from St. Louis to Texas, but it should be borne in mind that St. Louis is used as a basing point for the rates from other so-called "defined territories." In the exhibit mentioned Territory "A" represents Pittsburgh Territory, from which rates are made by adding the following differentials to the rates

from St. Louis:

First classFifty	cents
Second class	cents
Third class	cents
Fourth class. Twenty-three Fifth class. Nineteen	cents
A	cents
	cents

В	Sixter Sixter Sixter	en cents
C	Sixte	en cents
D	Sixte Fifte	en cents
E		

Territory "B" indicates Chicago Territory-Q. You are now marking out a zone marked "B" on Exhibit 42? A. Yes, sir. Territory "B" indicates Chicago Territory, the rates

from which are made the following differentials higher than 2830 from St. Louis.

3830	from	St	L	01	11	s.																														
																																Twe	enty	C	en	ts
First c	lass		 									•				•		•	•		• •				•	•					. 5	Sixt	een	C	en	its
First c Second	class.		 							•	•		•		•		•		•	• •				•	•							Tw	elve	9 6	en	its
Second	class		 						•			•		٠				*								•							Ter	1 (er	its
Third Fourth	class.										٠					•	•	*			•	•						•	•			S	ever	1 (er	nts
Fourth Fifth	class								•				• •											•	•	*	• '						Nine	e (cer	nts
Fifth A								•									•	*			•					•						F	igh	t	cer	ats
A B																•		•							۰		•	•		•	•	S	evei	0	cei	nts
B						۰										۰			•		*	•	• •		•	•	•	•	•	•			.Si	x	ce	nts
D											•												•	•			•	•	۰	•	•		Fiv	e	ce	nts
D							٠			•									۰			•		•			•	•	-	-	-		1 4			

all of which indicates that as our distances and consequently the cost

of service increases, our rates increase.

The rates to Texas Common Points are not made entirely from St. Louis. In many cases the rates are made from the territories east, and rates are then fixed from St. Louis on differentials under the

rates so fixed from Eastern Territory.

This is due to the fact that the further East we go the more keenly do we feel the Water Competition of the Steamer Lines from New York to Galveston and Texas City. In adjusting our rates to Texas we attempt to arrive at a rate which will yield an average return. In other words, we do not figure on the trains to Paris, in the northern part of the state of Texas, nor on the rates to San Antonio, in the southern part of the State, but a rate which applied to the entire territory would yield an average return. In the case of the "Lumber Zone," which has been referred to,

commercial conditions govern to a large extent. It must be admitted that our profits vary as to individual shipments. A shipment, for instance, from Little Rock to Kansas City yielding larger profit than a shipment from Lake Charles; still our rates are

3831 adjusted so as to meet these conditions and yield a fair profit

on our entire lumber business.

The zone basis in this instance has been largely the result of evolu-Without it, it would have been practically impossible to have built up and established the Lumber traffic as it exists today. our lumber rates on yellow pine from the south were first established they were made entirely to meet the competition of the white pine from the north. At that time there was little or no pine shipped from southern Arkansas, Louisiana, or Texas, for the reason that that territory was then undeveloped. The competition was entirely from southern Missouri and northern Arkansas. The Grandin District on what was then the Kansas City, Fort Scott and Gulf Railway, now the Frisco, and the Leeper District on the Iron Mountain Railway was the principal producing territory for southern yellow pine and rates were fixed to the Missouri River by arbitration, after a long rate war, on the basis of 15 cents from Chicago on the White Pine and the same figure from the Leeper-Grandin District on the yellow pine.

From the territory further south, which was then just beginning to develop, a differential of seven cents per 100 pounds was fixed; in

other words, a rate of 22 cents per 100 pounds.

3832 It was found that this higher rate from the Southern territory could be maintained for the reason that the Pine was more prolific and easier to log than the Missouri Pine, the Missouri Pine cutting not to exceed 3000 feet to the acre while the Southern Pine ran from 10,000 to 15,000 feet to the acre. When the Southern territory developed it was found it would be impracticable to charge a higher freight rate as we went south, as practically all of the Pine in Louisiana and in Texas was of the same nature, and if we increased our rates as we went south the manufacturer in the southern portion of the State would be at such a disadvantage that he could not compete with the northern manufacturer. as our rates have from - to time been re-adjusted we have been obliged to consider a scale of rates, not from Little Rock nor from Lake Charles, but from an average point of shipment. It is conceded that our rates from Little Rock, in and of themselves are high; while from Lake Charles they are low; and while, as a matter of fact, they do not yet represent (taken as a whole) what we feel we are entitled to, they are as high as conditions seem to justify.

This statement applies only to the points of origin. So far as the destinations are concerned our rates increase as the distances increase showing that while they are on the zone basis so far as the points of origin are concerned, they still are made to comply with our

fundamental principle—cost of service.

3833 In this connection let us examine Mr. Hamilton's testimony with reference to the rate and movement from this zone. That is, the lumber zone. He states "Out of 584 stations in this zone 319 are located on 36 other lines which connect with the St. L. I. M. & S. Railway and which would receive for their haul

a varying proportion of the rate."

There does not seem to be anything particularly remarkable in this statement, nor anything which would lead one familiar with conditions to say that these rates do not reflect cost of service, as has been stated. The Iron Mountain, in conjunction with other Trunk Lines leading from this zone, and reaching the consuming territory, fix the rates for application from their stations. These rates we have been permitted to average and so adjust as to receive a fair profit over and above all expenses.

If our lumber adjustment ended here, I take it the State could not make any serious objections to our theory or our basis, but there remains, as has been stated, some thirty-six short lines, varying in length from 25 to 300 miles, which do not reach the consuming territory, but which produce lumber in large quantities. What,

then, is to become of this tonnage? The rates have been fixed, as has been stated, by the Trunk Lines and the manufacturer on the short line cannot pay the local of the Short line plus the rate of the Trunk line and compete with his neighbor who is located on Therefore, as a necessity, the same rate

the trunk line. is applied from the Short Line producing the tonnage and it is allowed a division of such rate for its service. This traffic, from its nature, can be and is handled at a less margin of profit and tends to greatly increase our tonnage, thereby reducing the general

cost of handling all business.

Q. Your remark as to "short lines" there refers to the testimony of Mr. Hamilton with regard to certain rates on lumber-I mean a comparison of certain rates on lumber from Little Rock to points

south and east thereof.

A. It refers to the testimony which Mr. Hamilton gave. I read one statement which he made. He goes on to pick out individual cases where we shipped so many cars of lumber from Alexandria proper and received a certain number of cars from the St. Louis Watkins and Gulf Railroad and certain others from the Louisiana Railway and Navigation Company.

Q. He refers, for instance, to a car from Malvern at 18 cents per hundred and from Saginaw, which is a greater distance at 14 cents per hundred and from the same point at 18 cents per hundred, growing out of allowances made to other connecting short lines. That is the condition he referred to in the statement you have made just

now?

A. Yes, sir. Q. That is brought about by the necessity of protecting the industries located on those short lines, is it not?

A. Yes, sir. Q. Proceed, Mr. Perkins? 3835

A. Mr. Bee, in his testimony, states that the necessities for these zones do not at present exist. In this he is testifying to a condition of affairs with which he is evidently not familiar, as any one who is familiar with the freight rate adjustment in the South-west knows that these are conditions which the railroads can-As a matter not abolish without disaster to the shipping public. of fact, the Interstate Commerce Commission after a thorough investigation have approved this zone basis of making lumber rates.

I refer to the case of the Chicago Lumber & Coal Company vs. Tioga Southeastern Railway Company, reported in the 16th Inter-

state Commerce Commission reports at page 323.

While I do not feel that the zone basis of rates mentioned detracts to any great extent from the statements already made with respect to the cost of service, that element being present in a somewhat modified form, it is true that this basis is used only where commercial conditions fixes it, or in cases where the mileage is great and the zone rate will yield approximately the same rate per ton per mile on account of the length of the haul. Our general basis of rates is to a large extent on a mileage scale, that is, the rates increase with the mileage, the increment being smaller as the distance increases.

3836 Our rates, as an example, from St. Louis to Arkansas, are 70 cents per 100 pounds, on First Class, at Moark, the first station in Arkansas, and grade up as the distance increases to \$1.22 on First Class at Fulton, in Southern Arkansas.

This is also true in Louisiana, the rate to Jones Spur, the first station being \$1.15 on First Class and grading up to \$1.37 at Fenton.

in the Southern portion of the State.

In Oklahoma the same conditions is found and while this Compony does not operate to any great extent in that State, the rates to points in the Eastern section, Sallisaw as an example, are \$1.10 on First Class, while to the Western part of the State, Mangum as an example, the First Class rate is \$1.30.

In Missouri our rates naturally increase from the East to the

West, being on the Missouri mileage scale.

In Kansas rates grade from the Eastern portion of the State from 89 cents at Topeka on First Class to \$1.46 at Scott City, in the extreme Western portion of the State, all of which indicates that the State is attempting to prove a rule by its exception.

3837 Q. Mr. Ludlam made some reference to the commodity

rates:

I wish you would give some attention to the statement made by Mr. Ludlam that the same condition prevails with respect to the commodity ratings.

A. The same condition prevails with respect to the commodity ratings as mentioned in Mr. Ludlam's testimony. That is, he has attempted to prove by a few exceptions that the general rule which

we have testified to does not hold good.

The Western Classification, concerning which testimony has already been given, governs on Texas traffic, as well as on all other

traffic west of the Mississippi River.

There are, of course, exceptions to this Classification applicable on Texas interstate traffic, which exceptions change to some extent the rating or minimum weights as the case may be. These exceptions are issued as a convenience more than a necessity.

In other words, the Classification provides for no commodity ratings, only the ten classes, with the possible addition of a few high grade articles which are classed as "double first-class" and "three times first-class," and where conditions demand a special or commodity rating on a given article we attempt where possible to adjust this by an exception to the Classification, rather than by burdening the individual tariff with commodity ratings.

not always possible, however, and in such cases commodity

3838 ratings are prescribed.

In these Classification rates, as well as in the exceptions, the same fundamental principles with respect to the cost of service as previously testified to, exists; that is, the light and bulky articles and the more expensive articles are given the higher ratings, while the heavier and more compact and less expensive, the lower ratings.

To this, as to all rules, there are exceptions and when we find

peculiar conditions which warrant a change, it is necessary that that change be made.

On page 1264 of Mr. Ludlam's testimony he states:

"I find that that tariff (referring to Southwestern Lines Tariff No. 1-DD) names a rate on beer in glass, at 48 cents per 100 pounds, with minimum of 30,000 pounds, and that the same tariff names a rate on bar iron of 55 cents per 100 pounds, with a minimum weight of 36,000 pounds."

and calls attention to the fact that the casualty risk on beer in glass would certainly be very much higher than it would be on bar iron.

Beer is an article which is manufactured very largely in the state of Texas, large breweries being located at Fort Worth, Houston and San Antonio, and in shipping beer from interstate points it must necessarily be at a rate which will permit it to compete with that manufactured within the state; and while the rate on bar iron represents probably a fair and reasonable rate, we are obliged to accept a lower rate on beer. In other words, accept a smaller profit or pro-

hibit its movement. With respect to rate on excelsior, this is more or less of a paper adjustment, as I doubt whether on the rate mentioned 3839 there can be any material amount of business moved. known as a very cheap commodity and one which is manufactured

in the south as well as in the north. Potatoes, with a minimum weight of 30,000 pounds at 54 cents per 100 pounds, are compared with a rate on horse shoes, of 62 cents,

with a minumum of 36,000 pounds.

Shipments of potatoes represent relatively a large movement, while horse shoes a small movement. Potatoes are a necessity of life which, regardless of their perishable nature, will not stand as high a rate as horse shoes or other articles of that nature.

Poultry netting is not, as testimony would indicate, given a special commodity rating, but is one of the list of articles which is known as the "wire and nail mixture", that commodity providing for a rating on nails, spikes, staples, wire poultry netting and other like commodities in straight or mixed carloads.

There is no question but this rate was too low, and, as a matter of fact, correction has been made in our tariffs so that at the present

time the rating on this list is 56 cents per 100 pounds.

Some history as to how this rate was originally established may be of interest, as it will show how many of our rates are limited and how the state rates have a direct bearing on our inter-

The rate was originally fixed from Memphis to Texarkana basing state adjustment. on Little Rock, using from Little Rock to Texarkana the Arkansas

The rate to Texas common points was based on the combination state rate. through Texarkana using the Texas Commission rate from Texarkana to Texas common points, of 25 cents per 100 pounds, as provided for in Railroad Commission of Texas Circular No. 2013, effective March 24, 1904.

In other words, this particular rate was made absolutely on the

state rates, two factors being present—one, the Arkansas state rate,

and the other the Texas state rate.

Compared with this commodity is iron or steel chain, which represent relatively a very small movement as compared with the wire and nail commodity list, and on which the conditions just explained do not exist.

In other words, were it not for the fact that our rates on wire and nails and that mixture were held down and limited by the state

rates, they would be on a higher level than at present.

Hollow building tile is compared with pig iron. The former commodity, as it is well known, competes direct with common brick in the construction of buildings. Common brick, as is well known, is manufactured all through the state of Texas, and we are therefore compelled to haul the hollow building tile at an exceed-

ingly low rate in order to permit its movement.

Attention is called to iron pipe coils for refrigerating machines, as compared with bar iron. If we were not limited to factors beyond our control, the rate on the iron pipe would undoubtedly be higher than on the bar iron. However, the Texas Commission, on account of pipe being manufactured at the Penitentiary at Rusk, have established an extremely low rate locally in the state, which forces corresponding low rates from interstate points. This fact only emphasizes what has heretofore been said with respect to the effect of state rates upon interstate rates.

In regard to the comparison as between sheet iron pipe 36 inches in diameter, as compared with sheet iron, flat, I am unable to determine why the difference in favor of the former rate was carried. The fact, however, that these rates were corrected so that the current issue makes sheet iron pipe 62 cents as against sheet iron, flat, 60 cents, would indicate that there was an error in the

original publication.

A comparison is made of the rate on matches of 71.5 cents from St. Louis, with the rates on wooden tooth-picks, of 80 cents from

St. Louis.

This looks on its face as an unfavorable comparison but the facts are not fully set forth in Mr. Ludlam's testimony. Matches are shipped in straight carloads. In fact, that is the only commodity rating which is provided for in our tariffs while wooden tooth-picks are shipped in mixed carloads and are included in our

3842 woodenware mixture, which includes forty-eight different commodities of woodenware; so as a matter of fact, the tooth-pick rating is in reality an L. C. L. rate, and to make a proper comparison should be compared with the L. C. L. rate on matches

which is the second-class rate, or \$1.21 per 100 pounds.

In the case of wooden kegs as against saddlery and hardware, we have to a market degree the higher priced commodity taking the higher rate and I can see nothing particularly faulty in this adjustment.

The balance of the commodities mentioned are practically a repetition of those already covered as applied to Atlanta, Alama and Marshall, all of these rates basing on combination of locals through Texarkana, Texas, by use of the Texas Commission local rate beyond that point, thus further emphasizing the relation between state and interstate rates.

In other words, the Texas state rates make the rates on the articles

mentioned to these points.

Q. Are there a large number of commodities embraced in the tariff in which Mr. Ludlam found the articles cited by him, which

I believe he designated as "Texas Tariff #1-DD"?

A. This tariff covers all the articles, or practically all the articles which can be shipped, thousands of them in number. The tariff is governed by the Western Classification, a copy of which I believe is already in evidence.

This Classification covers, as is known, all commodities which are shipped and assigns them to one of ten classes. So that as a matter of fact, this tariff with its ten classes and its com-

modities description covers practically all the articles which

Q. Mr. Hamilton stated in his testimony, referring to what he are ever shipped. said was a statement on the part of a witness of the railroads in this case, that the Arkansas Commission tariff denominated the Memphis rate, filed an exhibit (being Exhibit C-1), for the purpose of making a comparison between state and interstate rates in certain territory south of Little Rock:

I wish you would take that up now and explain it.

A. Our testimony has not been confined to the statement that the interstate rates from Memphis and other points are made on the rate from Bridge Junction, plus the bridge toll higher, although reference has been made, I believe, to this fact, and this condition of affairs existed on the St. L. I. M. & S. in 1907 and has continued to the present time to a very marked degree.

The rates to practically all points on our Memphis Branch are made bridge toll higher than state rates to Memphis Bridge Junc-

tion, which was on the west bank of the river.

As an example, the rate from Memphis Bridge Junction to McCrory are:

3844

1st	class,		Cents	per	100	pounds
2nd	"	35	84	22	**	44
3rd		31	46	66	66	66
4th	68	26	66	"	"	66
5th	66	18	66	66	66	66
A	66	19	"	66	44	66
В	"	14	**	66	66	"
C	"	12	66	66	66	66
D E	14	10		66	66	"

and from Memphis:

1st	class,	42	cents	per	100	pounds
2nd	"	37	"	. "	"	"
3rd	66	33	"	66	66	"
4th	66	28	66	66	"	"
5th	66	20	66	44	44	"
A	44	21	66	"	66	46
B	44	16	"	66	44	66
C	66	14	"	66	46	66
D	44	12	44	66	46	66
E	66	10	66	66	66	66

a difference of two cents per 100 pounds on each of these classes The rates from Memphis to New Augusta are:

1st	class,	45	cents	per	100	pounds
2nd	66	41	44	- 66	"	* "
3rd	"	35	44	44	66	"
4th	26	30	44	**	"	44
5th	66	21	44	"	44	44
A	**	22	44	**	66	66
В	44	18	66	"	"	66
C	**	15	44	"	66	"
D	44	12	44	**	"	**
E	•6	10	"	"	"	"

and from Memphis Bridge Junction:

1st	class,	43	cents	per	100	pounds
2nd	**	39	**	- "	66	- "
3rd	"	33	"	66	66	44
4th	48	28	66	64	"	66
5th	"	19	44	"	"	**
A	66	20	66	66	66	66
B	66	16	66	66	44	"
C	44	13	66	66	66	"
D	66	10	66	66	66	66
E	66	8	66	66	66	66

a difference of two cents per 100 pounds on each.

From a casual glance at the exhibit (C-1) mentioned, it 3845 would not appear that there was any relation whatever as between the state and interstate adjustment.

As a matter of fact, however, our rates from Memphis to all points in Arkansas, were made by using three factors, one of which was the Arkansas Commission's local rates.

At the time these rates were in effect, the St. Louis, Iron Mountain & Southern had an agreement with the city of Memphis as to the rates which we would carry from that point to Arkansas as compared with rates in effect locally in Amasas. That agreement provided that to points in Arkansas on the main line and branches south and west of Little Rock, except Fort Smith, Van Buren, the Greenwood branch and the K. & A. V. Division, rates from Memphis would be published the same number of cents per hundred pounds higher than the local state rates from Little Rock to destination, as the rate from St. Louis was higher than the rate from Memphis to Little Rock, or the following figures in cents, per hundred pounds:

1st class, 30 cents per 100 pounds 25 2nd .. " 22 20 3rd 22 .. 13 " 4th " 22 10 5th 22 ** 10 A 22 24 " .. " 10 B 22 22 ** 22 .. 8 C 22 * " 22 " 6

D " " 24 with the further provision that the rates from Memphis to Little

Rock would apply as minimum figures.

To illustrate this basis we will check the adjustment at Gum Springs, seventy miles south of Little Rock (that is one 3846

point mentioned in the exhibit). The first-class rate under the Commission's tariff is forty cents, adding the differential for first-class mentioned, namely, 30 cents,

produces the rate as shown in the chart, or 70 cents.

Second-class—the rate from Little Rock is 35 cents, plus secondclass differential of 25 cents, or through rate of 60 cents.

Third-class local rate from Little Rock is 31 cents, plus differential of 20 cents, or 51 cents, and so on down through the entire list.

In cases where the interstate rates are shown to be the same to the points mentioned in the chart the Memphis to Little Rock rate has been applied as a minimum, these minimum figures applying only to the stations directly south and west of Little Rock, which it will be seen were selected by the state to disprove our basis.

Q. Is Gum Springs the most southerly point to which it applies?

A. Yes, sir, Gum Springs is the most southerly point to which it That is the most southerly point at which any of the rates apply on that basis. All of the rates are not blanketed even as far as Gum Springs.

As we go south from Gum Springs, the Memphis-Little Rock rate does not affect the situation and it only affects it at all of the points mentioned on first-class, second-class and Class A, as 3847 shown by the chart.

That is on three classes?

A. Yes, sir. In other words, the state has picked out a comparatively small territory in Arkansas where this condition exists, to try to prove that there is no relation between our state and interstate rates, while as a matter of fact, that comparatively small territory is an exception to the rule, although in that territory there is the relaion between state and interstate rates, as I have explained.

Q. A similar chart has been filed as Exhibit D-1, illustrating the rates from St. Louis to certain points in Arkansas and containing a comparison of those rates to the Commission's rates: I want to call

A. The same condition exactly exists in the chart you mention, it your attention to that. containing a comparison of the rates from St. Louis as compared with the state rates, for the reason that, as has been previously testified to, the rates from St. Louis are made on a differential over the rates from Memphis, and whatever the adjustment is at Memphis naturally the same adjustment prevails at St. Louis.

Q. That produces the condition as shown in the chart referred to?
 A. Yes, sir. In other words, the explanation made of the Memphis

adjustment explains the adjustment from St. Louis, the conditions being the same with different figures.

3848

Q. Go on with your statement, Mr. Perkins.
A. To stations in Arkansas in the vicinity of Arkansas City and Helena, the rates from Memphis are based on full combination of locals to and from Arkansas City and Helena, using the

Commission's scale from those points,

All this will indicate how closely allied are the state and interstate In some cases they are, as has been stated, made directly by using the bridge toll over the Commission's scale from West Memphis and in other cases a differential over the Commission's scale from Little Rock, while in still others on combinations using the Commission's scale and with Memphis fixed on this basis our St. Louis rates are, as has been testified to, adjusted differentially higher, which in turn affects practically the entire interstate adjustment.

Q. Now, Mr. Perkins, is there any condition which forces the Company to adopt that combination of state rates between Memphis and points near Arkansas City, any conditions competitive or other-

wise? Explain what the underlying conditions are?

A. I can explain it better, probably, by citing the conditions at

Helena.

The rates from Memphis to Helena are, of course, on a low scale on account of the river competition; the Illinois Central reaches Helena from Memphis by a direct line: if we should maintain a higher basis of rates (which we would if it were

not for this competition), it would have the result of forcing shipments into Helena and from there they would be reshipped to the The same condition, of course, would prevail at Arkansas City.

Now, at Helena we have the competition of the river and of the Illinois Central Railroad. We might get the business into Helena

and we might not.

Further, it gives the shipper at Helena a very decided advantage. So, in order to adjust our rates so as to permit of direct shipmentwhich, by the way, is naturally cheaper for the railroad, we are obliged to recognize these combinations.

3850 Cross-examination.

By Judge HILL:

Q. You have used the term "relation between state and interstate rates" quite frequently in your testimony here, Mr. Perkins: I wish you would explain just what you mean by that.

A. By "relation between state and interstate rates" I mean that our interstate rates are dependent upon the rates as fixed on state

traffic.

Q. I do not believe I quite catch that, Mr. Perkins: do you mean in all your remarks in your preceding testimony as to the relation between the state and interstate rates the effect that the state rate has upon the interstate rate?

A. By saying that there is a relation between the state and interstate rates I mean that the state rates, as I have said, affect to a greater or smaller degree the interstate rates. In that way the rela-

tion exists.

Q. Just what is that relation?

A. That relation varies. It is the subject of practically all of the testimony I have just given with respect to our rates from Memphis to Arkansas points.

Q. As I understood your testimony on that, it was to the effect that the Arkansas Commission rates had, in a measure, controlled the interstate rates to and from Memphis: is that

3851 correct?

A. That is correct.

Q. You mean by "relation between state and interstate rates" the

controlling effect of the state rate upon the interstate rate?

A. I mean by the relation between state and interstate rates, as an example, where the state rates are reduced it will invariably cause a reduction in our interstate rates, possibly not to exactly the same degree; and where they are advanced it will permit of a smaller advance in the interstate rates.

Q. You say "probably not in the same degree": to what degree

would that advance be?

A. That would depend entirely upon conditions.

Q. It is in evidence here that on the Cotton Belt Railway in the month of January 1909, following the promulgation of rates by the railroads, after Judge Vandavanter's injunction, that the interstate revenue increased nine per cent and the intrastate revenue increased ninety six per cent-I am speaking in round numbers of course. Is that such a degree of increase as you would expect when the interstate revenue is increased nine per cent that the intrastate revenue should be increased ninety six per cent?

A. I do not think, Judge Hill, that an increase or decrease in revenue can be taken as a criterion of a difference in rates difference in the movement of commodities will have a very 3852

large bearing on that subject.

Q. Well, if you take the movement in a given month of state and interstate traffic, there is not any material difference between state and interstate movement, is there?

A. There may be a very marked difference.

Q. There may be, but I am asking as a general rule is that a fact?

A. I cannot say off-hand whether that is true or not.

Q. You have heard a great deal of testimony here, I presume, from witnesses largely on the railroad's side in this case, that state and interstate traffic moves hand in hand, that they move right together, haven't you?

A. I do not know that I recall that testimony.

Q. You know that to be a fact, whether or not you heard that testimony, don't you?

A. I would say, generally, yes, that is true.

Q. If you take a given month, or a given six months' period, or a given year, and you take all the revenue, state and interstate, for that given period, wouldn't it ordinarily reflect the same movement of the same classes of freight, state and interstate?

A. For a given time?

Q. Yes. A. As between state and interstate, I should say it

3853 ought to.

Q. That is coming back to the proposition we started with on the Cotton Belt, where in one given month when the railroad made both tariffs, state and interstate, there was an increase in revenue of nine per cent on the interstate and ninety six per cent on the state: you say where the state rates are increased that they will permit an increase in some degree of the interstate rates: now, what I am trying to get at, was this revenue produced on the Cotton Belt for that month the proper degree of increase?

A. I cannot tell you anything about what was the result from revenue or what causes made that. I would say if it caused an advance of ninety six per cent in our rates it would not be correct; but what the controlling factors were for the increase in revenue I do not know, and for that reason I do not feel I could answer the

question.

Q. From your knowledge of traffic in Arkansas during the month of January, 1909, would there be any reason why there should be any great difference in the movement between state and interstate traffic?

Col. Moore: Do you remember what month it was compared with?

Judge Hill: It was compared with a six months' period.

Col. Moore: It was compared with a period from July to December.

3854 Judge Hill: It was the six months' period for which you prepared your statistics in this case.

A. For the one month as compared with the six months?

Judge HILL: No, just comparing the movement of state and in-

terstate traffic during one month.

A. No, sir, I do not know that there is any reason for any great difference in the movement between state and interstate traffic for that same month.

Q. That is what my question is.

A. But I cannot say as to what the conditions were on the Cotton Belt. I hardly feel competent to testify as to those conditions.

Q. You know something about freight traffic in the state of Arkansas, don't you?

A. Yes, sir.

Q. You have been making freight rates in Arkansas for two railroads for a number of years past, haven't you?

A. Yes, sir.

Q. Assuming (it is a fact) that just two months prior to this increase in showing, the state rates were put under an injunction and the railroads put in their own rates; and that they increased their interstate rates; and immediately following that there was an increase in revenue for that month of nine per cent on interstate and ninety six per cent on state business, wouldn't you assume that these increases had been made by the railroads in what it regarded

as a proper relation between state and interstate rates?

3855 A. You refer to the increase in revenue?

Q. Yes.
A. I would say from my knowledge of railroading and the movement of traffic, that the increase in revenue may not have had any relation whatever to either an increase or a decrease in rates. In other words, we can and often do increase our revenue without any change whatever being made in our rates. We could as a matter of fact, increase our revenue with a decrease in certain of our rates. depends altogether on the class of business which we handle.

Q. I understand that, Mr. Perkins. That has been fully explained and you stated it a while ago. But I ask you if, as a matter of fact, from your knowledge of conditions in Arkansas during January, 1909, there were any such conditions as would explain

A. Without going back and analyzing the movement for that

month I could not answer the question.

Q. You know that the railroads increased their rates, both state and interstate, very much, and that immediately after that increase their revenue shows these percentages I have given you: don't you know, as a matter of fact, that most, if not all, of that increase was due to the increase in rates?

A. No, sir, I do not and I do not think it was.

Q. You do not think it was? A. No, sir. 3856

Q. That is your opinion, is it? Yes, sir, that is my opinion. My opinion is, Judge Hill, that you could not get, without any other controlling factors, an increase of 96% out of an increase we made in our rates, to save your life. In other words, if the movement had been identical for the two periods, you could not, to save your life, get an increase in revenue of ninety six per cent.

Q. Well, how about the increase of nine per cent on the inter-

state rates?

A. That may or may not have been due to the increase in rates.

Q. What do you think about it?

A. I do not know, without examining the movement. I would have to do that before making any answer whatever.

Q. When you increase your rates don't you look for a coresponding increase in revenue?

A. We hope to get it, yes.

Q. Don't you look for it? A. Yes, I should say we do. In other words, that is why we increased our rates. And with the same movement we would get it, but we do not always get the same movement. In other words, in one period of the year we will move cotton, while in another period

we will not have any movement of cotton. Q. But that is getting into comparing one period with 3857 another, while the question I am putting to you is comparing the movement of state and interstate freight during the same period.

A. If I understand your question correctly, you stated there was an increase of ninety six per cent in the period you mention as compared with the six months previous, and on interstate movement an increase of nine per cent.

Q. Yes, as compared with the same period.

A. What I say is that in my opinion that fact would have absolutely no bearing on the increase or decrease in the rates. In other words, on the change in rates, because in other words if it were due to a change of rates and we had moved the same commodities and the same number of tons of the commodities, you could not get an increase of ninety six per cent to save your life; because we have never made any such change in rates, state or interstate.

Q. You increased your rates after you got your injunction from

Judge Vandevanter, didn't you?

A. Yes, we increased our rates, but it did not look anything like

ninety six per cent.

Q. It didn't to you perhaps, but it did to some of the shippers, didn't it?

A. I do not think it did.

Q. Didn't a great many of the shippers file affidavits showing that you had increased the rates two hundred per cent?

3858 A. It might have on some particular commodity, but take our rate adjustment as a whole and I would say off-hand the increase was not over ten per cent.

Q. That is all you think the increase was on state rates?

A. I am talking about interstate rates.
Q. I am talking about state rates. Your ten per cent about agrees with these figures of nine per cent increase in revenue on the Cotton Belt during January 1907. You seem to have made a pretty accurate guess on that. Now, how much was the increase in state rates?

A. I do not know what it was in percentage, but it was not ninety

six per cent by a long ways.

Q. Didn't you increase the lumber rates over one hundred per cent?

A. No, sir.

Q. On the St. Louis, Iron Mountain & Southern how much did you increase the lumber rates?

A. I cannot tell you that without compacing them.

Q. Didn't you increase a great many commodities over one hun-

dred per cent?

A. No, sir, I would not say a great many commodities. We may have increased a few, principally where the state had provided for an abnormally low commodity rate on less than car load movement we made increases.

Q. You did not make a big increase on the lumber rate? A. We made an increase on lumber, yes, sir, but it was 3859 not one hundred per cent.

Q. It was pretty close to it, wasn't it?

A. I do not think so.

Q. My recollection is that the increase on lumber was over one hundred per cent. Don't you remember that? Did you take part in that rate hearing down there before Judge Trieber?

A. At what time?

Q. As to the fact that your rates were unreasonable?

Q. Would a violent or large increase in rates cause a large increase in the volume of traffic?

A. I should say not. Q. When there had been a large increase of state rates, which took place first before January 1909, would you expect a large increase of state traffic during January, 1909, to account for this ninety six per cent increase in revenue?

A. There might not be a large increase in tonnage, but there

might be a decided change in the character of the tonnage.

Q. Do you know of any great change in the character of the tonnage in January, 1909, which would mark it as abnormal and

A. I know this: at some season of the year in every year strange? there is a great difference in the class of commodities we 3860

Q. January 1909 must have been a very strange and abnormal

month on the Cotton Belt.

A. I don't know. It might have been. I am not competent to testify as to that fact. Mr. Watson may possibly be able to

testify as to that.

Q. Coming back to your definition of the relation between state and interstate rates: you were speaking of the effect of the Arkansas Commission's rates on the Memphis rate, and as I understand you, that was by agreement between the Iron Mountain Railway and some officials representing the City of Memphis, wasn't it?

A. The actual conditions were, yes. That is, in this particular territory that Mr. Hamilton filed as exhibits C-1. In other words, there were seventy miles in there where that agreement fixed the

rates.

Q. Didn't that agreement affect more than seventy miles?

A. That agreement did not affect more than seventy miles in that particular respect. It did affect the other territory in what we might call a normal way; in other words, the same way it is affected today. That is to say, where the rates are held down by a combination of the locals through Arkansas City or Helena. That is not a peculiar condition and it would not take an agreement to

bring about that result. Q. It was an agreement which brought about this Mem-3861

phis relation between state and interstate rates, wasn't it?

Col. MOORE:

Q. Do you mean generally?

Judge HILL: I mean generally.

A. No, sir, I would not say generally. There was this agreement, which was made on what we considered at that time sound business principles, which necessitated a certain adjustment from Memphis as compared with the state rates.

Q. That was to enable the Memphis jobbers to compete with the

Little Rock jobbers in Little Rock territory, wasn't it?

A. Yes, sir. Q. Was that a commercial or a cost relation in the adjustment of state and interstate rates?

A. That was a commercial condition.
Q. That was a concession conceded by your road to the shippers of Memphis in consideration of receiving some terminal facilities

in the City of Memphis, wasn't it?

A. I could not say Judge what the concession—it was not a concession—but what the arrangement was made for or what the conditions were. I was not with the road at that time. I understand in a general way there was such an understanding, but I really do not know what it was. I haven't found anybody connected with

the road now who does know.

3862 Q. You still preserve those rates though, don't you?

A. No, sir, we do not. Q. When did they go out?

A. I could not give you the exact date. They have not been in effect for some time.

Q. They were in effect during the period under inquiry in this law suit?

A. Yes, sir. Q. Take Helena and Arkansas City: was that a cost or freight relation that affects adjustment between the state and interstate rates in those communities?

A. It was an adjustment which was forced on us by two factors, one of which was the low water competition rate into Helena and Arkansas City, and the other factor was the local rates fixed by the State out of those points.

Q. Those were commercial and competitive conditions which fixed that adjustment of rates between state and interstate, weren't

they?

A. I do not know that you could call them commercial or competitive conditions. They were competitive so far as the adjustment of rates to Arkansas City and Helena were concerned, but they were forced by the state adjustment beyond there.

Q You might call that a political adjustment between state and

interstate rates: would that convey your idea?

A. That is a new term to apply to freight rates, but it might fit it pretty well.

Q. When you refer to the relation between state and interstate rates you mean the relation politically in such instances as that; and commercially where commercial conditions bring it about, and by competition when competitive conditions bring it about, don't you?

A. All forces which tend to make our interstate adjustment de-

pend on the state edjustment, yes.

Q. You say all these forces make it depend on the state adjustment?

A. No, sir, I say all those forces which do.

Q. Do you mean competitive and commercial conditions make interstate rates depend on state rates?

A. To some extent, yes.

Q. Just the other way I understand you in your main testimony. I thought you said commercial and competitive conditions, where they existed, accounted for an absence of adjustment between state and interstate rates.

A. I de r. i think so.

Q. Isn't it a fact that many interstate rates are made for you by conditions beyond your control at all?

A. Some of them are, ves.

Q. Many of them are, are they not?

A. It depends on what you mean by "many." Q. State what you mean by many.

A. I would say that these conditions as they apply to our 3864 entire rate adjustment would not be many. They are present,

however, to a larger or smaller degree.

Q. Isn't it also a fact that the state rates not only in Arkansas but in other States in the Southwest are made by legislatures direct, or by a Railroad Commission, when the rates are not under your control at all?

A. That is true.

Q. And in some of the other States in this Southwestern country there is no control and you have a free hand to make your own rates there.

A. I do not know where they are.

Q. How long have you been in the business?

A. I have been in the business about twenty years. Q. Has Louisiana any legislative control over rates?

A. Yes, it has a State Commission which controls every rate we have.

Q. How about Tennessee?

A. We do not operate in Tennessee.

Q. How about Mississippi?

A. They have a fierce one there. We do not operate there but I have heard of it.

Col. Moore: You have heard the thunder of it?

A. Yes, sir.

Judge HILL:

Q. There is a Commission now in Oklahoma, but formerly there was none in that State?

3865 A. I believe in every State in which we operate the rates are controlled by State Commissions.

Q. In 1907, the period of our inquiry here, there was no commission in Oklahoma, was there?

A. I do not recall just when the Oklahoma Commission did take

effect, but it seems to me it was before that, wasn't it?

Q. I don't know. You have referred frequently to an adjustment between state and interstate rates, using the term "adjustment of interstate rates": I wish you would define what you mean by "adjustment of interstate rates."

A. By "adjustment of interstate rates" I mean our interstate rate

fabric, if you please.

Q. You mean your whole system of interstate rates?

A. Yes, sir: that is it.

Q. You do not mean the adjustment of an interstate rate from St. Louis to Little Rock, for instance, but of the entire interstate rates on a given commodity over your entire system; is that what you refer to when you speak of the adjustment of interstate rates?

A. The adjustment of interstate rates as spoken of in railroad parlance means our entire rate fabric; as I have stated, that is our ten

classes and the various commodities.

Q. It just means rate schedules?

A. That is it.

3866 Q. You do not mean you adjust it to Missouri or Oklahoma, or to an Arkansas rate, or to a Missouri rate?

A. Not necessarily. In other words, instead of saying "rate adjustment" I might have said "rate scale," or any other term of that kind.

Q. I rather thought that was what you meant, but you kept using the term "adjustment" and I thought perhaps you were adjusting it into one of these other rates.

A. Adjustment is a common term in railroad parlance to designate

our rate fabric.

Q. Mr. Perkins, in the testimony you gave in chief I notice you were reading from a paper: you have prepared your testimony very carefully upon matters, haven't you?

A. I have tried to go into the matter carefully, yes.

Q. The testimony you gave in your direct examination a while ago was in the main reading a very carefully prepared paper, in answer to questions Mr. Moore put to you, wasn't it?

A. Yes, sir.

Q. And you feel reasonably certain that the testimony you have given there is accurate?

A. I do.

Q. You have not given it off-hand, but have given it a great deal of time, thought and consideration, haven't you?

A. Yes, sir.

3867 Mr. Hill: I cannot proceed further with the examination of this witness before reading the transcript of his direct examination.

Cross-examination of Mr. C. E. Perkins, continued. 3868

By Judge HILL:

O. Mr. Perkins, I notice at page six of your testimony you say "Territory B indicates Chicago territory the rates from which are made the following differentials higher than from St. Louis" and you give the differentials. "All of which indicates that as our distances and consequently the cost of service increases, our rates increase." That you regard as a correct statement, do you, Mr. Perkins?

A. Yes, sir.

Q. Suppose you had a shipment of first class goods from Chicago to a Texas common point: that would be a differential of twenty cents over the St. Louis rate, applied to that shipment, to make the rate from Chicago to the Texas common point, wouldn't it?

A. That is correct, yes, sir. Q. Suppose that shipment came over the Chicago & Alton from Chicago to St. Louis and was here delivered to your road: what division of that rate would the Chicago & Alton get?

A. Twenty per cent.

Q. That would be how much?

A. 33.4 cents.

Q. What is the first class rate from St. Louis to Texas Common points?

A. \$1.47.

3869

Q. You give the Chicago & Alton, then, 33 cents of that rate?
A. Yes, sir.
Q. Your revenue would decrease on account of the increased distance of the shipment from Chicago, wouldn't it?

A. Our individual revenue would decrease to some extent for the reason that we are obliged to divide with another line.

Q. Then what do you mean by saying here:

"Adding this differential as your distances increases and conse-

quently the cost of service increases, your rates increase."

A. I speak there of the total distance the shipment travels, not over our line particularly but over all our lines, that the distance increases and, therefore, the rates increase. Now the division of that rate is a different proposition.

Q. As a matter of fact your revenue, when you are speaking of the revenue you get, decreases instead of increasing from the fact

that that haul is from Chicago instead of from St. Louis?

A. That statement taken by itself is a fact, yes. But our haul does not increase. I said that the haul for 3870 the entire shipment increases, for the entire length of the That haul increases and, consequently, the rate increases. other words, as the haul increases we did not apply the St. Louis rate We applied the higher rate for the reason that the up to Chicago. haul is increased.

Q. Your cost of service on that haul from Chicago as compared with the haul from St. Louis to some Texas common point is the

same, is it not?

A. The cost of the service probably would be the same, or substantially the same. The value of the service would be somewhat less.

Q. The cost of the service would be the same?
A. Yes, sir; substantially the same.

Q. And yet, from the fact that that haul comes from Chicago, as compared to a haul that originates at St. Louis, your revenue is less?

A. Somewhat, yes, sir.

Q. To the shipper the rate is increased, but your revenue is decreased?

A. The rate for the entire service is increased.

Q. But your revenue is decreased? A. Our individual revenue is, yes, sir.

Q. In this case your revenue is divided upon a track mileage basis, your interstate revenue, is it not?

A. No, sir.

3871 Q. How is it divided?

A. It is divided on an arbitrary basis, an agreed basis you might say.

Q. In making up the statistics in this case on your interstate reve-

nue how is it divided?

A. To what statistics do you have reference?

Q. The statistics on your interstate revenue that you put into this case, showing what your interstate revenue is in the State of Arkansas for a given period?

A. I don't know. I did not have anything to do with those sta-

tistics.

HUBERT ROTH, recalled.

JUDGE HILL:

Q. Mr. Roth, how is your interstate revenue divided in these statistics?

A. On a straight track mileage.

JUDGE HILL:

Q. Then, Mr. Perkins, taking for illustration two shipments, one from St. Louis and one from Chicago, going over your line to the same Texas common point, your revenue being divided on a track mileage basis in this case, would put a different revenue for the same service into the statistics of this case, would it not?

A. Well, I do not feel competent to answer that question, Judge.

I have not had anything to do with statistics which were compiled or applied in this case. I do not know what they were.

Q. You accept Mr. Roth's statement as true?

A. Yes, sir, but outside of that statement I have no knowledge of that.

Q. In my question I am assuming Mr. Roth has testified to the truth and I ask you to assume that he has. Taking that as assumed to be true then I will ask you to answer my question.

A. I have no information as to whether we have any statistics

governing shipments from Chicago, for the division of the revenue on shipments from Chicago, filed in this case.

Q. You are not willing to take Mr. Roth's statement then as

a fact and answer the question?

A. Not as you ask it, no, sir, because I do not know. But so far as I know we have not any statement of that kind in evidence.

Q. You know that you have exhibits in this case showing your interstate revenue in Arkansas, do you not?

A. Yes, sir.

Q. You have heard Mr. Roth state that that revenue was arrived at on a track mileage basis?

A. As between state and interstate?

Q. No. He said that the interstate revenue was arrived at on

a track mileage basis.

A. I do not understand from that there is any evidence 3873 in this case that our shipments from Chicago, for instance, have been divided on a track mileage basis, or that shipments from Pittsburg have been divided on a track mileage basis, as between our line and our connections. That is what you are trying to get me to testify to now?

Q. No, I am not trying to get you to testify to anything except

as to the effect of what Mr. Roth stated as a fact.

A. I do not know that what Mr. Roth stated has any relation to the fact you are trying to get me to testify to. I cannot see it if it is there. I cannot see the relation at all.

Q. You know you have statistics in this case that set forth the interstate revenue derived from traffic on your road for a period of

six months, do you not?

A. I think there is. I am not fully familiar with the statistics

but I understand that is in evidence.

Q. Mr. Roth has here stated, in your hearing, that the interstate revenue is apportioned on a track mileage basis. That is, Arkansas is given credit for so much of the interstate shipments as are represented by the mileage of those shipments in Arkansas: you understand that, do you not?

A. Yes, sir.

Q. Now my question is this: assuming this statement to be true, that in a shipment from Chicago of first class merchandise to a common point in Texas, and a similar shipment from St. Louis to the same common point in Texas, the revenue derived from

these two shipments being divided on a track mileage basis 3874 would make the revenue for those two shipments different,

although the cost of the service was the same.

Mr. Moore: Do you mean by that question the total revenue derived, from that particular shipment, or the revenue that accrues to the St. Louis Iron Mountain Railway from that shipment.

Judge Hill: My whole question is confined to the revenue of the

Iron Mountain road.

Mr. Moore: I did not know that the witness would understand that.

A. Let me see if I understand your question: It is, that the proportion of the through rate from Chicago, which accrues to the Iron Mountain south of St. Louis, in the case of a through shipment is apportioned as between state and interstate on a track mileage basis; and in the case of a shipment from St. Louis, the entire rate from St. Louis proper is apportioned between state and interstate on a track mileage basis?

Q. Not between state and interstate; but the rate itself between Missouri and Arkansas, or whatever state it runs through, is apportioned on the track mileage basis. In this instance it is between Missouri and Arkansas because your line runs only in Missouri and

Arkansas.

A. In other words, your question in regard to the through shipment from Chicago relates to the proportion of the rate 3875 which accrues south of St. Louis.

Q. Which accrues in the State of Arkansas?

A. I think I understand your question now. Previous question is here read to the witness.

A. The revenue would be somewhat different on the two shipments. In other words, we would not be in a position to earn the

same amount of profit on the two shipments; our profits would be different, in other words.

Q. You would not get the same amount of revenue, whether there was a profit in the revenue or not?

A. No, sir, we would not get the same amount of profit either. Q. You do not know whether you ever made any profit on it,

do vou?

A. Yes, sir, I would say if it was first class we would make a profit.

Q. That would be pure guess, that you made a profit?

A. If we do not make a profit on first class goods we would be bankrupt right now.

Q. You have no data to know that you make a profit on that

\$1.47 rate, have you?

A. \$1.47 is the highest rate we have got, and if we do not make a profit on that we would be in the hands of a Receiver long ago.

Q. I understand your argument, Mr. Perkins, but have you any data to show the cost of carrying that \$1.47 per hundred shipment?

3876 A. Not that particular shipment.

Q. Your judgment is, that your rates on first class goods are high enough to make you a profit?

A. Yes, sir. If we had no other rates we would be doing fine.

Q. I have used first class on those two shipments, as an illustration. That same thing is true of all other shipments that come from Chicago to Texas common points, compared to shipments from St. Louis to Texas common points, is it?

 A. Yes, sir, that is true.
 Q. You set forth here tables on the classes of differentials, and without going into the detail of them, I assume this illustration

which I have worked out of twenty cents on first class would apply, differing of course in detail as to all the others; is that true?

A. That is true. Q. I have used this illustration merely for Chicago: would not that also be true of all of what you have termed "Defined territory"

differing, of course, as to amounts and degree?

A. Yes, sir, it would. In some instances we would obtain fully our local rates; in other cases we would not. In other words, the differentials which are mentioned there are made to approximate as near as practical the locals up to the Mississippi River. In many cases, on account of certain conditions they are lower.

have, therefore, in some conditions under which we would get our local rates and under other conditions we would get less than our local rates. We do not have a percentage division of the rates after we get east of the Illinois-Indiana state line.

Q. Your revenue would be in varying proportions as the ship-

ments would differ from different defined territories? Slightly varying. They would not vary to any great degree.

Q. This illustration which we have used, of first class from Chicago to St. Louis, generally would apply to the balance of the traffic, Texas common points coming from defined territory north and east of St. Louis?

A. As to actual results in the figures, you mean?

Q. Proportions, I mean. I do not mean actual figures. A. I would say it would come pretty close to it. It might vary

one way or the other. Q. That would be a fair illustration, of the principle, is the point I am getting at: isn't that true?

A. That is true. Q. Take the other end of the line: what did you say was the furthest Texas common point?

A. I mentioned San Antonio; that is one of the furthest southern

Texas points.
Q. Well, take San Antonio and take that shipment from St.

Q. Well, take San Antonio it would be \$1.47: How Louis first class to San Antonio it would be \$1.47: much of that rate would the Iron Mountain get? 3878

It would get a division of it.

Q. Yes, but I am asking you how much it would get.

A. I could not tell you offhand.

Q. Could you tell me approximately?

A. Its approximate mileage pro rate between our line and the

Q. Is that the usual rule you have with all the shipments to I. & G. N. Texas common points a mileage pro rate?

A. No, sir.

Q. What is the rule? A. It is a varying rule. We have arrangements with each different line. They are made sometimes on actual mileage and sometimes on constructive mileage and sometimes on an arbitrary basis.

Q. They vary, however, I presume with the length of the haul

in Texas?

A. Yes, sir, the longer the haul the more the line in Texas gets.

Q. Approximate that shipment to use it as an illustration—say a shipment of shoes from St. Louis to San Antonio, Texas: You get \$1.47 per hundred as the gross revenue: how much of that \$1.47 per hundred pounds would the Iron Mountain road get?

A. Well, I should say, roughly speaking, 55%.

Q. Something like 70 cents: it would be between seventy-3879 five and eighty cents; that is right, is it not?

A. Yes, sir.

Q. Take a similar shipment to the next Texas common point: what would that be?

A. Our proportion?

- Q. Give me first the nearest common point in Texas? A. I would say Marshall, Texas, is a nearby point.
- Q. What would you get on that shipment of shoes to Marshall, Texas?

A. 70 per cent. Q. Seventy per cent?

A. I am speaking from memory now.

Q. I am not asking you to be accurate, but speaking simply as to the proportion, that would be \$1.03 that you would get on that shipment?

A. Very close to it-\$1.02.

Q. It would be about twenty-five cents difference, in round figures, on the revenue received from the shipment to Marshall and the shipment to San Antonio?

A. That is about correct, yes, sir.

Q. The services that your road would perform for those two shipments would be indentical?

A. Yes, sir.

Q. There would be no difference in the cost of the service?

A. No, sir.

3880 Q. There is heavy traffic on your road to Texas common points, isn't there?

A. As compared with our entire traffic, no, sir.

Q. What do you mean by "as compared with your entire traffic": you mean the entire traffic of the Iron Mountain System?

A. Yes, sir

Q. I believe it is in evidence here that 51% of your traffic passes through the state—what is known as trans-state"?

A. Through Arkansas?

Q. Yes.

A. That does not necessarily mean it goes to Texas, though.

Q. I was going to ask you, what is your judgment as to what proportion of that 51% would go to Texas common points?

A. You mean what proportion of that proportion?
Q. Yes.
A. Necessarily the Texas common point shipments are included in that 51%.

Q. I want to get an estimate as to what proportion of that 51% would be represented by shipments to Texas common points?

A. Less than ten per cent.

Q. How much less than ten per cent?

A. Less than 10% of the 51%. In other words, it would be a rough estimate but it would be somewhere between five 3881 and ten per cent I should say of that 51%

Q. The same situation exists on business from Texas common

points, does it not?

A. Yes, sir.
Q. That is heavy traffic, isn't it?

A. I included in my estimate the business to and from Texas. Q. You would put that from five to ten per cent of the 51%, would you?

A. Yes, sir.

Q. The same situation would exist in regard to these divisions of the rates from the Texas points as we have been illustrating to the Texas common points, would it not?

A. Yes, sir.

Mr. MOORE:

Q. Would the divisions be the same?

A. Yes, on the same basis.

Mr. HILL:

Q. The shipments then, say from San Antonio to St. Louis, the division of the rate going to the I. & G. N. would be on a track mileage basis, would it?

A. Practically on a track mileage basis. It is not an absolute

mileage pro rate.

Q. What is it, if it is not that?

A. It is a constructive mileage, to a certain extent—from San Antonio proper I think it is actual mileage.

Q. Well, take the other Texas common points: the general 3882 system I am trying to get at and not any isolated case.

A. With the I. & G. N. and the T. & P., who are our closest connections, generally the mileage basis is used. That is as near as you can come to it, without taking a record and taking the division

Q. Suppose your shipment goes to some other road than the I. & G. N. or the T. & P.?

A. Then the basis of division is altogether different.

Q. What is that basis?

A. There is not any set basis applied to all lines. It is a matter of agreement between the interested lines, entirely.

Q. And that would be a varying proportion you would get from

each?

A. It would be a proportion which would be on some general theory; that is, as the Texas local mileage increases their proportion would increase, as a general proposition.

Q. Your service would be the same on all of that, would it? A. Yes, sir.

Q. But your revenue would vary for this same service, then, upon

the lines on which the shipment originated, and also upon the distance it was hauled by that other road?

A. There is not any question about that.

Q. There is not any question about it?

A. None in the world.

Q. I do not know but I believe you have heretofore

answered the question but to be certain I will ask it again:

That would be the same proportion whether the shipment originated in Texas or whether it was destined to the same point in Texas?

A. The same principles are applied.

Q. I understand the same principles, but I ask if it would be the same amount?

A. It would not be necessarily the same amount. In some cases the northbound and the southbound amounts are different.

Q. That is what I am asking about.

- A. As a general proposition they are the same, but in some cases on the same lines the northbound and the southbound amounts are different.
- Q. That again would make a variation in your revenue, depending on whether it was a northbound or a southbound shipment?

A. Yes, sir, that would make a small difference, ves.

Q. Do you remember the first class rate from St. Louis to Texarkana?

A. \$1.37 per hundred pounds, I think it is.

Q. What is it to Little Rock? A. \$1.00 per hundred pounds.

- Q. Does not that \$1.00 rate extend south from Little Rock a considerable distance? 3884
 - A. It extends to Gum Springs,—that is, it did in 1907. Q. That is what we are talking about now, 1907.

A. Yes, sir.

- Q. It did not extend to Texarkana? A. No, sir.
- Q. How far is Gum Springs from Little Rock?

A. 68 miles.

Q. Then your shipment from St. Louis to Little Rock would be \$1.00 and the same rate would apply down about seventy miles south of Little Rock?

A. Yes, sir.

Q. Of course it would cost you more to haul that freight from St. Louis to Gum Springs than to haul that same freight to Little Rock?

A. I should say it would, to some extent, yes, sir.
Q. In speaking of the lumber shipment from the zones you stated at page 9, so far as destinations are concerned the rates increase as the distance increases; showing that while they are on a zone basis so far as the points of origin are concerned, they are still made to comply with our fundamental principle-cost of service.

Do you not have delivery zones where lumber is delivered as well

as zones where the lumber originates?

A. As a necessity we do not make a different rate to each different station. The same rate will probably extend to a number

of different stations on our line. As a general proposition, as the distance increases those rates increase. In other words, our rate, quoting now as an example the present rate be-3885 cause I cannot recall just what the rates were that were in effect in 1907—but for example our rate on lumber today to Kansas City is 24 cents and to Omaha it is now 25 cents (it was 261/2 cents per hundred pounds). And as you go further west from Omaha our rates grade up, on the Nebraska State rate higher than the Omaha rate, straight along.

Q. I understand that-

A. (Continued.) And as we go further away our rates increase. The same is true into Iowa. As we go further from Missouri River our rates increase steadily until they get up to St. Paul and that territory. If we go east of the Mississippi River our rates increase the amount of the local beyond Cairo or Thebes. Now naturally on our rails there will be certain groups of stations which will take the same rates.

Q. That is the point I am getting at.

A. You will find in those groups they increase as you go further away. In 1907, the rate to the Missouri River was 23 cents. You get further west and it is shown on the exhibit filed that the rate is 281/2 cents.

Q. If you will permit me to interrupt you, Mr. Perkins, I am not questioning that at all and you are getting away from my question.

Mr. Moore: I would rather he finished that answer. A. (Continuing:) As you go further west we reach the maximum rate which we can apply this 34 cents to Colorado 3886 common points. That rate applies to quite a number-to a large number, in fact, of stations on our lines, for the reason that it is the maximum rate.

Mr. HILL:

Q. My question was, was it not a fact that the lumber moved on the zone rate to other zone territory-or whatever you term it?

A. There are not supposed to be a zone, no, sir. We do not make a zone. Zone means there is a blanket territory from or to which the rates are the same, conditions making it necessary that they

should be the same. Now, we do apply some rates to a number of different stations. Those stations change. As an example, we have changed the rates now to Colorado common points. The rate is 371/2 cents per hundred pounds and that has changed to a very marked degree the group of stations to which that Colorado common point rate heretofore applied.

Q. You are getting entirely away from my question.
 A. I am trying to answer it to the best of my ability, Judge.

Q. It is simply this: Isn't is a fact that your lumber rates in Texas on zones in their origin or destination—and we have used the term "zone" in this testimony as meaning a defined territory in which the same rates prevail?

A. We never use that in railroading as a fixed territory—a zone.

If you say a group of stations where the rates are the same, I will

agree with you.

3887 Q. That is just a different use of terms. Then it is a fact that from a group of stations south of the Arkansas River say to the Gulf of Mexico the lumber moves on the same rate. And going to destination it moves into points wherein there is varying distances from that point and take the same rate to a given defined territory?

A. That is true. Q. Take this Exhibit No. 40, which you have heretofore approved, which shows that lumber moved from the zone rate in south Arkansas, Louisiana and Texas, goes to Zone A at 23 cents. which I believe is the Kansas City trade center, isn't it?

A. Missouri River group, yes, sir.

Q. That extends from Coffeyville, Kansas, to Omaha, Nebraska?

A. It did at that time.

Q. That is what we are talking about and not the present rate situation. And which extended as far east as Washington, Missouri and as far northwest as Douglas, Nebraska; and as far southwest as Carthage. I have correctly stated that, have I not?

A. Omaha is the farthest point west.

Q. That is correct, is it?

A. Yes, sir.

Q. All those shipments from any point in that zone region, south Arkansas, Louisiana and Texas, went to that zone A at 23

cents per hundred pounds. Then the next zone here I see is Zone C where it took a 28½ cent rate. That seems to extend from Anthony, Kansas, as the south point to Salina, Kansas, as the north point; and from a point just west of Wichita to a point just east of Olcutt: that is correct, is it not?

A. Yes, sir. There are a few stations right in that vicinity that

take the 281/2 cent rate.

Q. And there is another zone rate from near Hoisington, Kansas and extends to Pueblo, Colorado.

A. That is as far as our line runs.

Q. And then on the Denver & Rio Grande as far south as Trinidad and as far north as Denver which took a 34 cent rate.

A. Yes, sir. Q. That is a correct statement of the lumber rate situation, is it not?

A. That is a partial statement of the lumber rate situation. you say that is the lumber rate situation you have not entirely stated it, because you have neglected to include in there the adjustments between those points where the rates grade up. In other words, you pick out two or three rates and say that is a correct statement of the lumber rate adjustment. It is partial only, so far as you have shown it.

Q. It is a correct statement so far as it is shown?

A. Yes, sir, so far as it is shown; but you have not shown the intermediate grades between the various points, showing that the rates grade up as the distance increases.

Q. We will take up some of those:

I wish you would explain your system where your lumber is not shipped to these zones, which have been indicated on the map which you have approved, but which is shipped say through those zones.

Mr. Moore: You mean the points between the zones?

Mr. HILL: No, I said through the zones.

A. I do not understand what you mean by "explain our system."

Mr. HILL:

Q. You have just stated you had a different system of grading

shipments by distance.

A. No, sir, I said you had not mentioned any intermediate points between those zones, which naturally are on a different basis. I cannot say what they are or what they were in 1907 without taking a tariff and going through it.

Q. You mean a system of grading according to distance applied

except in these zones?

A. I mean to say a graduation, yes, as you go further west, which would run all the way up from 23 to 28 cents, for instance. I cannot say offhand what they were or to what stations they applied. It is too far back and it is a detail which I have not in my head.

Q. When this lumber goes off your rails at Kansas City or Omaha from any of those trade centers out there, the blanket rate would apply to Kansas City or to Omaha, I presume, would it not-say it was going beyond Kansas City or Omaha? 3890

A. I do not understand that.

Q. Would it apply, so far as you haul it, or do you get a propor-

tion of it? I want to know your system?

A. On business destined to connecting lines the through rates are published, naturally. That through rate is divided between our line and the connecting line. In other words, we would not get our local up to Kansas City.

Q. That is what I am asking.

A. No, sir.

Q. You would get a varying proportion according to the distance although your haul was only to Kansas City?

A. That is right. Q. In other words, it is the situation in regard to Texas common

points applied to lumber?

A. Yes, sir, very largely. It is the same thing I testified to as to the points of origin. If the origin is off our line we do not get the same amount of revenue that we do if it is on our line.

Q. You take a case where two shipments are made from Malvern, where there would be a twenty-three cent per hundred pound rate to Kansas City; if that were delivered to you at Malvern by a tap line would you get say six cents off, or whatever your division would

be; it would be 17 cents for one and 23 cents for the other? A. That is assuming that the tap line division is six

3891

Q. Some of yours are, and I am taking that simply as an illustra-

tion. You would get 23 cents per hundred pounds on one shipment and 17 cents per hundred pounds on the other shipment for identically the same service?

A. That is as between a shipment originating at Malvern proper? Q. Yes, and one which was delivered to you by a tap line there. A. We have no tap lines which get six cents at Malvern.

Q. I am using that as an illustration merely. You have plenty

of tap lines, which do get six cents?

A. No, sir, we have not. Because Mr. Hamilton mentioned certain lines but they were railroads two or three hundred miles in length.

Q. Call them what you please. Instead of tap lines call them

connecting lines.

A. The point I want to make is, that the example you are giving is an impossible one, from Malvern. That is all.

Q. You do have a connecting line or a tap line at Malvern, have

you not?

A. Yes, sir. Q. And you have also a line at Malvern where you get shipments direct, have you not?

A. No, sir, so far as I know all shipments we get at Mal-

vern are from the Malvern and Freco Valley.

Q. Have you any other points on your line? I happened to think of Malvern but take any point where you have a connecting line and also saw mills?

A. That would be possible.

Q. I may have been wrong in using Malvern but the point is the same using Gurdon or some other point.

A. As an illustration it is all right.

Q. Take for illustration that you have hauled two cars of lumber, on one of which you get 17 cents per hundred pounds and on the other 23 cents per hundred for the same service.

A. Yes, sir.

Q. And carrying that illustration a point further, if one of those cars, say the one which originated on the connecting line went to another carrier beyond Kansas City, and it would get 6 cents per hundred pounds say for illustration, you would get eleven cents out of that shipment whereas you would get 23 cents out of another shipment.

A. That would be impossible.

Q. And the service would be identical.

A. That I say would be an impossible—I know it would be an impossible proposition. Q. Why?

A. Because if the division was as much as six cents the rate would have increased beyond Kansas City. In other words, the rate to Kansas City is not the rate to connecting lines necessarily, but it is the higher rate. That rate might have been 28 cents instead of 23 cents.

Q. On the connecting lines?

A. Yes, sir, on connecting line business.

Q. How much would you make on that, say it was to some point beyond Kansas City where your rate was 28 cents: how much would the Iron Mountain get out of that shipment?

A. I would say, roughly speaking, our proportion up to Kansas

City would be twenty cents.

Q. And if you had already taken out six cents to give to connecting carriers down there in the woods, that would leave you 14 cents for that shipment?

A. Yes, sir. Q. And on one shipment originating at the imagined point you would get 14 cents and on the other shipment from the same point you would get 23 cents, for identically the same service?

A. No, sir, not for the same service. Q. What would be the difference?

A. The difference would be that on business going to a connecting line, for instance, our service would be through and when we got it to Kansas City we would simply set it on the transfer track while business delivered to Kansas City we would probably have to switch it or perhaps have to absorb-in nine cases out of ten we would have to absorb the varying switching charge of five to six dollars there at Kansas City. All our deliveries at Kansas

City provide for "Kansas City delivery". That car may have been intended for an industry and it probably would be on 3894

the belt line; most of the lumber dealers are on the belt line. would have to pay the belt line the switching charge. The way-bill would have to go through our office and be revised and collection of freight charges made. While all of that additional service and additional charge would be eliminated on business going to a connecting line at Kansas City.

Q. That is, if they made through billing?

A. We do have through billing with all our connections.

Q. Then it would be more expensive to you to deliver that to an industry at Kansas City than it would to deliver it to a connecting line?

Q. In this mileage pro rate of the revenue on that, that would not A. Yes, sir. be taken into consideration, would it?

A. The mileage pro rate? Those facts would not be present because the mileage pro rate is applied only to through shipments,

Q. Your expenses on that shipment in Missouri would be greater than it would be in Arkansas per mile, and yet you have divided the revenue on a mileage pro rate that does not properly reflect that: is not that true

A. No, sir, I do not think it is true. That is, one would offset the other. A shipment from a mill point proper in Arkansas we have to handle the car to the mill. We switch it in and

3895 then go and get it and put it in the train and take it up to the junction point, say Little Rock, and put it into a train and take it on.

Q. I am assuming, for the purposes of this question, that two cars originating at the same place, say Freeo Valley, your connecting road at Malvern and one destined to Kansas City proper the other destined to a point beyond Kansas City. On the car destined to Kansas City proper your haul is the same but your terminal expenses at Kansas City are more expensive than the terminal expenses on the one going to the connecting line: that is correct, is it not?

A. Yes, sir.

Q. Making a mileage pro rate of those two rates, you have not reflected in that that difference in the terminal cost at Kansas City,

have you?

3896

A. I presume I have. In other words, while I have not divided any of that expense which does not come under my jurisdiction, I would understand that the terminal expense would be deducted before pro rating.

Q. You think that would be the correct way, do you not?

A. I think that would be done, ves, sir. It would need to be done in both directions, however, to make it correct. Perhaps on a similar shipment going to Arkansas the expense would be on the Arkansas end. So to make it correct, of course, they would have to deduct the terminal expense at both ends.

Q. A mileage pro rate would not be correct unless the

terminal expenses were deducted, would it?

A. If it were applied in both directions it would probably equalize itself.

Q. Do you think that is an answer to my question?

A. Yes, sir. We very often equalize those. We have arrangements with some line, for example some connecting line, where the terminal expense and where the bridge arbitrary are deducted before pro rating. We have other arrangements where they are not; but where each one takes care of its own terminal expense, on the theory that one equalizes the other.

Q. Have you any such expenses in Arkansas as they have at

Kansas City?

A. Not as expensive; I should say not.

Q. It would not be fair to equalize such things as Kansas City or Chicago terminal expense with the expense at the terminals in Arkansas, would it?

A. The expense of a particular shipment might be as heavy,

yes, and they might equalize themselves.

Q. You put it as a general proposition that in your opinion the expenses on a shipment going through Kansas City and Chicago equal the terminal expenses on a shipment to Arkansas?

A. Our shipments from Arkansas to our stations on the Missouri Pacific do not go through Kansas City to any appreciable extent. In other words, our lumber route is through Coffeyville.

3897 Q. That is getting away from the proposition. You do have shipments through Kansas City and you do have them through Chicago and through New York, do you not?

A. Yes, sir.

Q. The proposition you laid down a while ago was, that there might be a general evening up of those terminal expenses and I am

asking you if there are any terminal expenses in Arkansas that could be equal or could even up with the terminal expenses in Kansas

City, Chicago, or New York. A. Yes, sir, I would say yes, the general expense of delivery. A shipment say from Little Rock would be probably as expensive as in Kansas City. We have the same clerical work exactly. And in case of a shipment destined to an industry on a connecting line we have practically the same switching charge to pay that line.

Q. Then you would even up Little Rock with one of those

terminals?

A. I would say that would be practically so.

Q. Are there any other termina's in Arkansas that are anything like comparable to St. Louis, Kansas City, Chicago or New York?

A. Every competitive point would illustrate that same fact. would have exactly the same clerical work to perform. We would have the switching charge to pay the connecting line at Forest City or Malvern or at Pine Bluff or in fact any competitive point,

\$2.00 or \$3.00 a car, which is just as much money in Arkan-3898

sas as it is at Kansas City.

Q. Are you going to even up all of the terminal expenses in

Arkansas against all the terminal expenses out of Arkansas?

A. I am not trying to even up anything, Judge, I did not even know about that revenue as divided on an accounting basis. I am simply trying to answer your question.

Q. I understood you to say you would even them up.

A. I simply said they might be evened up that way. I do not know even what they are. The dividing of expenses between States is not a matter that comes before the Traffic Department at all. We do not attempt to do that.

Mr. MOORE:

Q. Mr. Perkins are you speaking now of terminal expenses in Arkansas or other States as applied to individual shipments, or the total of the general expenses say at Little Rock, and the total of the general expenses at Kansas City, and the shipments collectively that originate and are delivered at those points?

A. I am speaking of the individual shipments that Judge Hill has

named.

Judge HILL:

Q. Come back to the individual shipments if you prefer to take it that way, you instanced some individual shipments to Kansas City, one of which would be more expensive on account of the terminals there, and the other shipments passing through would be less

expensive on account of the less use of terminals: is that 3899 correct?

A. Yes.

Q. Do you say it would be fair to divide those two individual rates on a mileage pro-rate without taking into consideration the extra expense of your terminal at Kansas City?

A. I cannot say without I know how the whole matter is handled.

Q. I am not asking you how the matter is handled, but I am ask-

ing you what you think of the fairness of it.

A. I say I cannot answer that without I know how it balances. You cannot take one end of a proposition and say whether or not that is fair, without knowing the other differences.

Q. To what other conditions are you referring?

A. As to whether or not a similar action is taken at the other end of the run.

Q. I am taking your illustration here.

A. I would say that in dividing the revenue between States on a mileage basis, if the expenses at Kansas City were deducted before pro-rating, then the same character of expense at the other end should be deducted. But if the expense at Kansas City were not deducted then Arkansas should take care of her terminal

expense.

3900 Q. In reply to Col. Moore's question I understood you to say this: the individual shipments you are referring to, and I am going back to, from the original shipments we were discussing—that is, the two cars of lumber shipped from the Freeo Valley Railway Co. at Malvern and carried to Kansas City on your road, the one delivered to an industry on the Belt Line at Kansas City, and the other delivered to a connecting carrier: you said it would be more expensive to the Road to deliver to the industry on the Belt Line than to deliver to the connecting line.

A. At the same rate?

Q. I am asking you if it is a fact that to divide those rates representing those shipments from the Freeo Valley Railway Co., which were carried to Kansas City, on a track mileage basis, is fair.

A. It might or might not be.

Q. Is that the only answer you can make to the question?

A. I stated before I could not take that end of it without taking the other end.

Q. But I have taken the other end; both of them originating at

the Freeo Valley Railway Co. at Malvern.

A. You do not say what the practice is with relation to taking

care of the expenses, whatever they may be in Arkansas.

Q. Taking the individual shipments, I do not see that that some would make any difference. The terminal expenses in Arkansas are exactly the same on those two shipments, aren't they?

A. As a matter of fact you cannot fix a rate that would pay you

on all shipments by taking two individual shipments.

Q. You said you were speaking of individual cases and not general ones. I am taking the individual cases in reply to that suggestion. Now, take those two individual cases, the shipments from Arkansas where the terminal expenses are bound to be the same, so there is no difference at that end of the line, is there?

A. No, sir.

Q. You have pointed out the difference in Kansas City, and there being no difference in Arkansas I bring the question home to you again, would it be fair to make that division on the mileage basis?

A. I cannot say just from those two individual shipments whether

it would be fair or not as a general rule.

Q. I am not asking for a general rule. I am asking about these two individual cases. You said you were speaking of individual cases, and I am trying to hold you down to those two individual cases and not asking you to apply a general rule.

A. You cannot apply a general rule to an individual ship-

ment.

Q. What is the general rule? 3902

A. I do not know.

Q. You have heard a good deal of the testimony in this case, haven't you?

A. I have heard a good deal of it, yes.

Q. Did you hear Mr. Doddridge and Mr McPherson testify to

shipments passing through Arkansas as if on a bridge?

Q. Did you hear Mr. Doddridge testify at all, and I did not hear Mr. McPherson on that portion. I do not think I have heard Mr. McPherson on the stand and I know I did not hear Mr. Doddridge

testify.

Q. Assuming that these gentlemen did testify that this trans-state traffic (which amounts to 51 per cent) passed through the State of Arkansas as if upon a bridge—and by that I assume they mean without terminal expense: say, take for illustration there were the same shipments from Chicago and St. Louis to Texas common points, or from Texas common points to Chicago or St. Louis; or take it there were lumber shipments from Louisiana through to St. Louis or Kansas City: shipments of that grade I am referring to, which would have no terminal expense in the State of Arkansas, excepting division terminal expenses: or terminal expenses on that business not being in Arkansas, would make the expense of that business in Arkansas much less than it would be in Missouri or Texas, or the other points on either side of Arkansas, wouldn't it?

A. I would say it would be less, yes, sir.

3903 Q. Then, would it be fair to divide the rates on that business on a track mileage basis while the expenses had been heavier in Texas and Missouri and Louisiana than they had been in Arkansas?

A. I would say that would depend somewhat on the exact nature

of the shipment, as to whether it would be fair or not.

Q. Take the entire lumber traffic, as an illustration.

A. Well, I would say as a general proposition the expense would be somewhat greater, but just how much I am not prepared to state, outside of Arkansas than it would be in Arkansas. There would be some terminal expense outside of Arkansas to be considered. I am not prepared to say, however, what basis would or would not be fair to divide that business on as between state and interstate.

Q. I am not asking you for a general basis, but I am asking you if this track mileage basis would be a fair basis on which to divide say the lumber traffic which passes through Arkansas from Texas to Kansas City and St. Louis: is the track mileage basis a fair one to

divide that on?

A. As applied to that particular business I would say probably the

track mileage would not be altogether fair. That might be the nearest basis that could be arrived at for dividing it, however.

3904 Q. That is lumber you are referring to, where you say it would not be fair?

A. Yes.

Q. Take shipments to Texas common points and from Texas common points passing through Arkansas on the Iron Mountain Railway: would a track mileage basis of division on that be fair?

A. It would depend on the shipment. Take the shipment from the East for instance that you have mentioned as coming to us at St.

Louis from the East, I would say it would be fair, yes.

Q. It would depend on where it would originate, as to whether it

would be a fair basis or not, wouldn't it?

A. The same conditions would not necessarily prevail on a through shipment as on a local shipment originating in the State of Missouri.

Q. For illustration take all the traffic that goes direct from St. Louis to Texas common points, or terminal expense here in St. Louis, and the terminal expense for delivering it in the various cities of Texas: Is the traffic mileage basis of division on that fair, when it passes through Arkansas as on a bridge?

A. I do not feel that I am competent to testify on that. I have not given that feature of it any study. As a matter of fact I 3905 have not given any attention to the subject of how they divide

it, or if it is divided on track mileage, as to the factors that

are considered.

Q. I am not asking you how these gentlemen divide it. You have brought that into the case yourself by calling attention to the difference in the terminal expenses at Kansas City.

A. I have not brought the track mileage basis into it.

Q. No, but you brought into it the difference in the terminal expenses at Kansas City, which naturally led to the inquiry. If you have introduced a subject you are not competent to answer, you have introduced it yourself.

A. You are asking me about an entirely different subject. You are asking me if track mileage is a fair basis of division as between

States.

Q. As between States on either side of Arkansas, where the heavy

terminal expenses are, and not in Arkansas.

A. I simply explained that on a shipment to Kansas City the terminal expense would be heavier than on a shipment delivered to a connecting line at Kansas City.

Q. I understand that, and I have taken that and followed it a step further and developed these matters about which I am now asking you.

A. You are trying to make me testify about something I 3906 do not know anything about.

do not know anything about.

Q. Isn't it a part of your business to make these divisions?

A. No, sir.

Q. Between the different connecting carriers?

A. Yes, sir, between the different connecting carriers but the

apportionment of earnings or expenses to the different parts of the

system, no.
Q. I understand that. But the basis of division between the different lines in Texas coming to your line at St. Louis, it falls within your jurisdiction to make those divisions, doesn't it?

A. Yes, sir.
Q. You have testified that in fixing these various divisions you have tried to consider the cost of the divisions service, as I understand you: is that correct?

A. The cost of the service enters into all of our rates and division

making, yes.

Q. Take the grain traffic: Mr. McPherson testified, as I recall it, that there was a very heavy grain traffic going from the Northwest to New Orleans, and I think it went through the State of Arkansas as if upon a bridge-according to their theory: now I will ask you if it would be a fair basis of division of the revenue from that grain traffic coming from the Northwest, to divide that on a track

mileage basis.

3907

A. I have tried, Judge, to explain to you that I do not know anything about the divisions as between the different parts of I do not know the first thing about it.

Q. I am assuming now that it was divided on a track mileage basis. Assuming that to be true, I will ask you if that is a fair divis-

ion of that revenue.

A. I would not like to answer that off-hand. Q. You do not know whether it is or not?

A. No, sir.
Q. How do you think that grain would compare with the lumber? Which would have the most terminal expense outside of Arkansas,

grain or lumber?

A. That would be a pretty hard comparison to make. I would say the terminal expenses would probably run about the same. is, there would not be very much difference. In some cases one would be heavier than the other, or vice versa.

Q. If the terminal expense would be about the same and that

would not be fair for lumber, would it be fairer for grain?

A. I do not know enough about the divisions as between the different parts of the system to enable me to answer you intelligently.

Q. You stated at page 7 of your testimony:

"In the case of the lumber zone which has been referred to, 3908 commercial conditions govern to a large extent. It must be admitted that our profits vary as to individual shipments. A shipment, for instance, from Little Rock to Kansas City yielding a larger profit than a shipment from Lake Charles: still our rates are adjusted so as to meet these conditions and yield a fair profit on our entire lumber business."

I wish you would explain just what you mean by that Mr. Perkins? A. I mean that the rates on lumber as applied from the lumber zone which has been referred to, not taking into consideration necessarily the rate from the most Northern point or from the most Southern point, is fixed so as to yield a fair average profit from the entire zone.

Q. What do you mean by "an average profit"?

A. I mean taking the earnings which we will receive from shipments from the North end of the zone, and the earnings which we will receive on shipments which will originate in the central part of the zone, averaged together will yield a fair return.

Q. Wouldn't you have to know the cost of carrying this lumber traffic in order to determine whether or not you have earned a fair

profit on it as a whole?

A. Not absolutely necessary.

Q. I did not ask you absolutely. But you have to know it, either absolutely or some other way, wouldn't you?

A. No, sir, not necessarily.

3909 Q. How would you find it out? A. We would find it out by a comparison of our earnings on lumber with our total earnings.

Q. Those are the only statistics they have, the average cost per ton

mile on all your business?

A. Yes, sir.
Q. You have no statistics as to the cost of your lumber business?
A. We have no statistics, no, sir.
Q. You have no statistics as to the revenue as a whole from the lumber business?

A. Yes, sir. Q. You have that?

A. Yes, sir.

Q. Do you know just what it is?

A. Yes, sir.

Q. Do you know what that is per ton per mile?

A. Yes, sir. Q. What is it?

A. I could not tell you off-hand just exactly what it is, but it is in the neighborhood of six mills.

Q. What is the average cost per ton per mile for all your business?
A. The total cost is in the neighborhood of between five and six

mills. Q. Now that is the way you have figured that there would 3910 be a profit on that: you have taken your total cost of all your business as being somewhere between five and six mills and you found that the revenue on all your lumber business was about six mills; and, therefore, you figure that you have made a small profit on the entire business.

A. Yes, sir.

Q. Is that the process of reasoning?

A. That is about it.

Q. That is what you mean by this statement I have just quoted from your testimony: is that true?
A. To what statement do you refer?

Q. The one I have just read you that rates are adjusted to meet these conditions and yield a fair profit on the entire lumber traffic?

A. Yes, sir.

Q. That zone extends from the Arkansas River South to the Gulf of Mexico and includes all of Louisana and a part of Texas, doesn't it?

A. Yes, sir.

Q. Do you know what volume of that lumber traffic originates in Arkansas—I mean what proportion of it?

A. No, sir.

Q. Could you make an estimate?

A. No, sir, I would not like to make an estimate without going into the figures some. I would say, however, it is small as compared with the volume from further South.

Q. It would probably not be over twenty per cent, would 3911

A. It would not be that much.

Q. About what would it be? I do not mean any close accurate estimate, but I want to get the result of your best judgment.

A. I would say between ten and twenty per cent or somewhere

around there.

Q. And somewhere from eighty to ninety per cent of the lumber originates South of Arkansas?

A. Yes, sir.

Q. I mean South of the State line.

A. Yes, sir.

Q. Rates on lumber shipped from Arkansas of this ten to twenty per cent are much higher—that is, the proportion your line gets is much higher than on the bulk of the shipments that come from places outside of Arkansas?

A. No, sir.

Q. Why not?
A. We get the same proportion whether it comes from Arkansas or Louisiana.

Q. You get the same proportion?
A. Yes, sir.

Q. On a track mileage division?

A. There is not any track mileage division about it. We have our rails in Arkansas and we have our rails in Louisiana: if the rate is 23 cents from Arkansas to Kansas City, and 3912 the rate is twenty-three cents from Louisiana to Kansas City, we get the same proportion.

Q. You heard Mr. Roth testify that when you come to divide that revenue between Arkansas and other States you divide on a

track mileage basis?

A. You said "your line."

Q. I should have said "your line in Arkansas." A. Then what is your question now?

(Previous question read to the witness.)

Q. Now answer my corrected question. A. If what you mean—and that is what I am trying to get at, what you mean, -do you mean, do we get more per ton per mile for handling traffic from Arkansas than from Louisiana?

Q. Yes.
A. Yes.
Q. The service is the same. For the same service you get more per ton per mile for shipments from Arkansas than you do for shipments from Louisiana and Texas.

A. The service is greater.

Q. From Louisiana and Texas?

A. Yes, sir, the service is greater from Louisiana and Texas to some extent than from Arkansas.

Q. When you are speaking of average profit on this entire lumber traffic you did not have in mind that the revenue derived from the traffic in Arkansas would be apportioned on a track mileage basis, did you?

A. I did not have any such facts in mind, no sir.

Q. Mr. Perkins, the rate per ton per mile on the lumber, ascertained on the track mileage basis, taking the lumber traffic A. You mean the lumber traffic originating in Arkansas? Q. Yes. of Arkansas, would be much higher than six mills, wouldn't it?

A. Probably it would be higher, yes.

You stated at page R-11 of your testimony, speaking of the division of the rate with the connecting carriers,

"This traffic from its nature can be and is handled at a less margin of profit and tends to greatly increase our tonnage, thereby reducing the general cost of handling all business."

Do you think the lumber delivered to your road by connecting carriers is handled at a less cost than the lumber delivered to you by

a saw mill on your tracks?

A. I did not say it was handled at a less cost. I said it was handled at a less margin of profit. The cost would be very nearly the same. We do not expect and cannot get the same amount of profit, even though the cost may be substantially the same, out of all traffic.

Q. I do not think you made it very clear here (indicating page It would rather indicate the opposite in this testimony.

A. I did not say anything about cost in that testimony;

3914 I said profit.

Q. That is handled at the same cost but with less revenue:

that is what you mean, isn't it?

A. I would say it is handled at substantially the same cost, but with a different degree of profit.

Q. That is less revenue, isn't it?

A. Yes, you can call it that if you want to.

Q. That is what it is, isn't it?

A. We are dealing in profits.

Q. We are not in this case, but we are dealing in revenue.

A. You are speaking to me as a freight man, and a freight man is looking after profits.

Q. He is looking after revenue primarily, isn't he? A. Revenue is profit.

Q. It is not always profit, is it?

A. We try to make it so.

Q. You are referring to gross or net revenue?

A. To gross revenue.

Q. Then it is handled for less gross revenue but at the same cost?

A. That is not what I said exactly.

Q. Substantially the same cost, I believe, is your exact language.

A. I would rather stick to what I testified to.

Q. Didn't you testify it was handled at substantially the

same cost with less gross revenue?

A. I testified it was handled at substantially the same cost 3915 and less profit.

Q. Where did you get the profit? A. The profit over and above expenses. We do not necessarily

figure on the same expenses.

Q. You deal with just two elements: you pay out so much money for expenses and you get so much money from the shippers as gross revenue?

- A. Yes, sir. Q. That is all you deal in?
- Q. And the difference between that is profit or loss as the case may be?

A. No, sir, it is not.

Q. What is it?
A. There are varying costs. We have our gross cost. the cost figured on all the expenses of the road. Now, on everything we haul we do not make a profit over and above that figure. For example, our gross expenses may be between five and six mills per ton per mile and we may on some particular commodities handle business for as low as four mills per ton per mile. We are making a profit, nevertheless, over and above our transportation cost in that

particular instance. Q. You are making it on the whole business and not 3916 on those particular shipments you are carrying for a loss?

A. No, sir, we are making it on those particular shipments.

Q. How do you know that?

A. Because we know about what our transportation cost is. is something like a man in the grocery business: he may not be making on sugar an amount that will pay him a profit over and above all his fixed charges, but it will pay him a profit over and above the cost on that particular item.

Q. What do you mean by "cost" in this regard?

A. Cost may be two things, so far as a freight man is concerned: cost can be and is the total cost of operation which figures all of the items that enter into the operation of a railroad from beginning to end. Now, in the nature of our business we cannot always handle all shipments so as to make a profit over and above those entire charges. If we did we would be getting to your tonnage theory entirely. But we do not and we cannot. Some commodities are very cheap and would not stand charges which would pay us a profit over and above our entire expenses. Some business we have to haul as low as four mills per ton per mile, but if we handled all our business at four mills per ton per mile we would be handling all our business at a figure which would be below our general cost and we would be bankrupt.

Q. As I understand you then it is this: some commodities

3917 you haul for less than cost—for instance, four mills?

A. No, sir.

Q. What do you mean by that?

Mr. Moore: You did not distinguish between general cost and capitalization cost.

Mr. HILL:

Q. I have not understood you, Mr. Perkins, if that is not what you mean.

A. I stated there were some commodities which we had to handle at a figure which would yield us a profit over our transportation cost.

Q. You are distinguishing between transportation cost and general cost, are you?

A. Yes, sir.

Q. Have you any statistics of your transportation cost?

A. Only in a general way.

Q. On all of your commodities as a whole, isn't it?

A. Yes.

Q. You have no statistics on the transportation cost of lumber or grain, have you?

A. No, sir, any more than we have actual statistics on any given

commodity for our entire cost.

Q. I believe you stated that the Interstate Commerce Commission after a thorough investigation had approved of this zone basis on lumber rates?

3918 A. Yes, sir,

Q. Isn't it a fact that the Interstate Commerce Commission has recently directed your road to cancel all of its division sheets on lumber with all connecting roads, and then temporarily held up that order to enable each road to appear before the Commission and ask for a division?

A. We do not know exactly what they have done, to be perfectly

frank with you.

Q. You know they did order you to cancel all of them?

A. No, sir, they did not.

Q. Didn't they order you to cancel all of them?

A. No, sir.

Q. And then suspend that order until January?

A. No. sir

Q. What did they do, Mr. Perkins?

A. They issued an opinion. The Commission has never made an order in the case; we have no order at all from the Commission

for the cancellation of the tap line division. But they did deliver an opinion that the giving of divisions to tap lines was in the nature of rebates, and that tap lines, although they had incorporated themselves as common carriers, were not in fact common carriers.

Q. Didn't they order a cancellation of all those divisions in the

Southwest?

They simply made an opinion. If you read that A. No, sir. opinion you will find there is no order in it at all. have simply given this opinion, that that was an illegal And they have indicated that unless the roads did 3919 cancel them there would probably be some prosecutions. And the roads have felt it necessary to cancel them, to get in the clear.

Q. Have they done so?

A. We canceled them and then under order of the Commission

they have been reinstated until January 5th next.

Q. Mr. Perkins, this bridge toll paid at Memphis goes to the road that owns that bridge, doesn't it?

A. It goes to the Bridge Company.

Q. You get no part of it?

A. Not that I know of. Q. When you fixed the Arkansas rates out of Memphis on the Commission's tariff you fixed it on the Commission's tariff plus the bridge toll; you fixed it on the Commission's rate itself so far as the revenue to your Company was concerned?

A. We fixed it on what we were obliged to fix it on. We did not

have very much voice in the fixing in that case.

Q. That is not an answer to my question. It is a fact that you fixed it so far as revenue was concerned on the Commission's rate, didn't you?

A. I do not think that is a fair statement of the facts. We fixed it without any relation to revenue or anything else. We fixed it on the tariffs made by the Commission. If the Commission fixed

a rate that did not pay revenue it would have been fixed on that same basis, probably because we could not get higher. Q. That Commission tariff was in effect at the time you fixed it,

wasn't it? A. No, sir.

Q. When was it fixed?

A. It was fixed before there was any Commission in Arkansas.

Q. And continued after there was one?

A. Yes, sir. Q. When you adapted it to the Commission rate, so far as revenue was concerned, you fixed your Memphis rates on the Commission rates, didn't you?

A. No so far as revenue was concerned, no, sir. We fixed it on the bare facts that that was the rate. Those were the conditions that

made it, regardless of what the revenue was.

Q. The result would be that so far as revenue was concerned you

fixed it on the Arkansas Commission rate?

A. The result so far as anything was concerned was that we fixed it on the Commission's rate, revenue or lack of revenue, either one.

Q. This is the point. The amount of revenue you receive from that Memphis rate was the amount of revenue which was fixed by the Commission's tariff, wasn't it?

3921 A. That was the result, but that was not the basis.

Q. It is the result I am asking about. That is what you did?

A. That was the result of it, yes.

Q. Did you consider that was paying you a profit, or were you making those shipments at a loss?

A. I do not know that that has ever been figured out.

Q. You do not know?

A. I never figured on that.
Q. You did not consider a profit on that at all?
A. We could not.
Q. You just put those rates in there regardless of whether they made a profit or a loss?

A. Just the same as we operate in Arkansas, whether we make a

profit or a loss. The rates control the situation.

Q. Isn't it a fact you made some rates out of Memphis into Arkansas at less than the Commission's rates?

A. Less than the Commission's mileage?

A. I think that is correct, yes.

Q. Did you make those regardless of whether you would make a

profit or loss upon them?

A. We made those subject to the understanding which was had with the City of Memphis as applied to the Arkansas local adjustment.

Q. That does not answer the question. Did you put in 3922 those rates regardless of whether there was a profit or a loss on them?

A. Well, I should say not. I was not with the road at that time, but I would say not.

Q. Why not?

A. I could not answer why not.

Q. Mr. Perkins, I do not quite understand this statement in your

testimony at page R 23:

"In cases where the interstate rates are shown to be the same to the points mentioned in the chart, the Memphis to Little Rock rate has been applied as a minimum, these minimum figures applying only to the stations directly South and West of Little Rock, which it will be seen were selected by the State to disprove our basis."

What do you mean by that?

A. I mean that you have selected a group of stations to which, on account of the conditions which I have mentioned, we have in one or two cases a blanket basis of rates; and you picked out that as about the only place you could find in Arkansas to prove or disprove our general theory.

Q. What do you mean by your "general theory"?
 A. The relation as between state and interstate rates.

Q. What relation? Cost relation, trade relation, or political relation?

A. The relation of the rates in and of themselves.

Q. What do you mean by the relation of the rates in and of themselves?

A. The relation of one rate to another rate.

Q. Do you mean the proportion that one rate will bear 3923 to another one?

A. I mean the bearing which one rate has on another rate, as a matter of fact. Q. Control, you would be more apt to say—the control of one rate

over another one, rather than the relation?

A. Yes, sir. Q. That is what you mean by that statement?

A. I think the word relation defines it better.

Q. You are discussing there the relation of the effect of one rate on another.

A. The effect of the relation of one rate to another naturally

Q. You take the rates in Arkansas that are less than the Commisaffects the two, yes. sion's rates and what would you say as to that relation or control of the Commission's rate as to them?

A. The basis which I outlined yesterday as governing that part of our line as applied to state rates brought about that result at that

Q. That might bring it to the State level, but how could that

bring it below the State level?

A. For the reason that in that particular case we used a minimum figure, which was the Memphis to Little Rock rate, 70 cents first class.

Q. On account of commercial conditions?

A. Yes.

Q. I believe Mr. Bragg gave instances of the Memphis interstate rate being less than the state rate to points on the 3924 White River Branch and probably other points: do you recall that testimony?

A. Yes, sir. Q. It was commercial conditions on that line that brought those rates down under the Commission's rates?

A. No, sir.

Q. What was it?

A. Competitive conditions.

Q. What is the distinction you make between commercial and

competitive conditions? A. A competitive condition is one that is generally brought about by meeting the competition of some other line, say a long line meeting the competition of a short line. A commercial condition is more of a trade condition.

Q. And this was a commercial condition in Memphis that fixed that scale; and it was a competitive condition on the White River Branch that brought those rates to the Arkansas Commission's scale? A. Yes, sir. I can explain it if you wish the explanation of it. Q. I do not care anything about it, but I just want the facts.

However, I have no objection to the explanation if you wish to

make one.

A. Our White River Division runs in a roundabout way 3925 from Memphis through Arkansas to Springfield and thence The Frisco has a direct line to Springfield. The Frisco for some reason, I do not know just what, have applied low rates to Springfield and that immediate territory. Of course they are very much shorter than we are and we have to meet that condition and that has brought our rates to a very much lower basis in that particular territory than we would apply if those conditions were not there.

Q. Then you had to bring your cost, reflected in your rate, to the level of the Frisco's cost, reflected in its rate from Springfield to those points?

We probably had to take a less profit then the Frisco did, as

they had a shorter route to that territory.

Q. You think you made a profit on those shipments to the White River Branch?

A. Probably.

Q. You think you can make a profit on shipping goods at less than

the Arkansas Commission's rates?

A. We made a profit over and above our transportation cost, but I do not say what we made a profit over and above our entire cost. I do not think we did.

Q. At page R 19 of your testimony you were speaking of the shipments to Texas points, and you said:

"In other words, the Texas State rates make the rates on the

articles mentioned to these points."

3926 Then the relation, as you used the term relation, between state and interstate rates would be the relation between the Texas State rates and your interstate rates, wouldn't it?

A. In that particular case, yes.

Redirect examination.

By Mr. Moore:

Q. While on that subject I wish you would take Exhibit F, Mr. Perkins, and point out those conditions. That is to say, where the Commission's rate is less and where it is higher than the interstate rate from Memphis to White River points, and explain the reasons for the interstate rates being lower in the instances where they are.

A. This Exhibit F seems to be a comparison of rates to Memphis from points on the White River Branch on the Iron Mountain, as against rates for an equal distance under the Commission's tariff No. 3, where on a distance of 172 miles the rate from Memphis is 69 cents as against the Commission's tariff 66 cents on first class.

Q. And second class the same?

A. Yes sir, on second class the rates are the same.

On third class the rate from Memphis is 47 cents as against 51 cents, or 4 cents lover.

On fourth class they are the same. 3927

On fifth class they are the same. Making only one class, and that the third class, where they are

lower. For 184 miles the interstate rate is 70 cents as against 68 cents

for the state rate. Second class is 59 cents as against 61 cents for the state rate, or 2

3928

cents lower. Third class is 47 cents as against 52 cents, or 5 cents lower. Fourth class is 40 cents as against 41 cents, or 1 cent lower.

Fifth class is 30 cents as against 31 cents, or 1 cent lower. For 201 miles the first class rate is 70 cents as against 74 cents.

Second class rate is 59 cents, as against 66 cents. Third class rate is 47 cents as against 50 cents.

Fourth class rate is 40 cents, as against 43 cents. Fifth class rate is 30 cents, as against 32 cents.

For 241 miles the rate is 70 cents, as against 79 cents.

Second class is 59 cents, as against 72 cents. Third class 47 cents, as against 60 cents. Fourth class is 40 cents as against 44 cents.

Fifth class is 30 cents as against 34 cents. Q. In those instances where the interstate rate is higher than the Commission rate it is because of the Frisco being a

shorter line and having a shorter haul? A. It will be noticed that the maximum rate interstate is 70 cents

first class. 59 cents second class, 47 cents third class, 44 cents fourth class,

50 cents fifth class. Those are maximum rates to any of those points from Memphis. That is the Frisco scale, being the short and direct line from Memphis to that territory, which held down our rates at intermediate points via our longer and more roundabout route.

Mr. HILL:

Q. To save coming back to this point, Mr. Perkins, I will ask you one or two questions:

Of those rates you have just quoted, seventy-five per cent of them

are lower than the commission rates, are they not?

A. Yes, I should say they are, out of the rates that were mentioned, Some of them only one cent. Some of them to a certain degree. more than one cent.

Q. The Frisco does not reach any of those points. A. No, not these particular points, but these points are 3929 directly intermediate with the territory just beyond that the Frisco does reach.

Q. Springfield is the only town it reaches? A. No, sir; Springfield, Aurora and Carthage are all right in that same territory. It fixes the entire adjustment in that territory.

Redirect examination.

By Mr. MOORE:

Q. Kansas City is a very large terminal point, is it not, and has a very large terminal service and provisions to meet a large terminal service?

A. Yes. sir.

Q. Is not the cost, per unit, for handling traffic in Kansas City, as low or lower than it would be in smaller terminals like we have in Little Rock, on account of the increased volume of that kind of business at Kansas City and at large terminals of that kind?

A. There is no doubt about that.

Q. You started making a comparison, a while ago, with reference to the cost of transporting low grade commodities that move from zone to zone, such as lumber, between the effect of the rates including all costs inclusive of transportation costs-that is to say, overhead costs, general expenses and things of that sort—with the transportation cost itself:

That is the cost of moving and handling the article, keep-

ing out these overhead expenses?

A. Yes, sir.

Q. You did not quite complete your comparison before some other question was asked you. I wanted to see if I understood your mean-

3930

While in some of the low grade commodities there may be a rate that would not produce a profit on the entire cost, including that overhead, it would with reference to the cost of transporting that commodity, produce something over the expense of handling it?

A. Yes, sir.

Q. That is what you meant, was it not?

A. Yes, sir, that was what I was trying to explain.
Q. You did not quite complete it. That is why I called your attention to it.

Now, referring to shipments to Texas via St. Louis, from points

east, such as Chicago:

I want you to state if there is any difference between the handling of freights that are received from connecting lines and the terminal service that is rendered to shipments to Texas of goods originating at St. Louis?

A. There is a difference, yes, sir.

Q. A shipment of shoes from Chicago, over the Chicago and

Alton, to a point in Texas was cited:

Taking that illustration, where would that—what line would that go on south of St. Louis? Would it cross the 3931 river and go on the main line or go down to Thebes and that line east of Mississippi River?

A. It would probably go down to the east side line.

Q. Can you state what the difference in the terminal expense of a shipment originating in St. Louis and the handling of that shipment that is delivered to your company from a connecting line would be?

A. In a general way, yes, sir. It will depend, of course whether you refer to less than carload or to carload shipments. It will depend, of course, as to

Q. Take it both ways, then.

A. In the case of a carload shipment the car is sent to us, delivered to us on our transfer track by the connecting line. Picked up there and switched into a through train and goes on on a through wavbill from point of origin to destination.

In other words, the waybill is made in Chicago and that document

carries it through to destination.

In case of a carload originating in St. Louis proper, a car must be sent to the industry by our switch engine, if the industry is on our line. If it is on the connecting line we pay for that service. Take an example where the industry is on our line: We set in the

When that car is loaded we send our switch engine car. It is taken into our yard and made up into 3932 back and get it.

The shipment is waybilled in the office of a through train. our local agent. That clerical service is done which is not done in the case of a through shipment although that, of course, being considerably more expensive from every standpoint than the case of a

through shipment.

Practically the same thing is true to a different degree in the case of a less than carload shipment. A package of shoes coming from Chicago would be handled in one of our through package cars from Chicago to Texas. That car would be delivered to us on our transfer and the car goes right through and with it the package of shoes, on the through way-bill; whereas in the case of a package of shoes delivered to us for shipment at St. Louis, the shipment is delivered at our freight station; handled by our truckers and put into the proper car at the proper place for unloading, all of which, of course, is an ex-That car then is switched out and put into our through pense. The waybill is made in our local office in St. Louis in the same manner that the waybill for the carload shipment was made.

Recruss-examination.

By Mr. HILL:

Q. Did you ever have any experience in the terminal yards here in St. Louis?

A. No, sir.

Q. Are the conditions you have just explained actual or 3933

A. What conditions do you refer to, as to the handling of shipments?

Q. Yes. A. Those are actual conditions, regardless of to what points they go through.

Q. Those are rather ideal conditions, those that should be, rather

than those that are?

A. No, those are necessary conditions.

Q. You have had no experience: you don't know whether they are practiced according to that theory or not, do you?

A. That is the way shipments are handled generally at all terminals.

Q. It seems, then, it would be more expensive here than it would be in East St. Louis?

A. In what way? I did not testify to any facts that St. Louis was any more expensive than East St. Louis.

Q. Would not that be the result of your testimony about that?

A. No, sir.

Q. I would not make any difference whether it went down the east side line or on the main line this side, so far as the expense of terminal is concerned?

A. Only so far as the terminal expense going across the bridge is

concerned.

3934 Q. You have to cross the river down at Thebes Bridge too. don't you?

We are part owner in the Thebes Bridge.

Q. But you are supposed to earn some interest on your investment, are you not?

A. Certainly.

Q. That has to be taken care of as well as pay the other bridge

here, has it not?

A. It has to be taken care of, yes, but then, naturally we can operate cheaper over our own property than we can over somebody else's

Q. You have an interest in the bridge here, have you not? A. I don't know whether we have or not, to tell you the truth,

Q. You don't know whether you can operate cheaper over a bridge which you have an interest in already, than a bridge where you have none?

A. I know there is a tax here, but whether we get any of it back here, I don't know.

Q. Do you think the terminal cost in Little Rock is as great as it is in St. Louis?

A. I should say it is greater.

Q. Per ton?

A. Yes, sir.

Q. How about the terminal cost at some little station say 3935 Newport or Malvern?

A. I should say that would be greater,

Q. Greater than it would in St. Louis?

A. Yes, sir.
Q. You explained that you have two ideas of cost, one the cost of transportation and another of the investment also: which are you referring to when you are comparing St. Louis terminal with the Malvern terminal?

Mr. Moore: What do you mean by "investment"? Do you mean different between the transportation cost and total general cost?

Mr. Hill: That is the way I understood his remark.

Mr. Moore: I do not see how you can apply the term "investment" to either one of them.

Mr. HILL (Previous question read; to which counsel adds): I mean by that the total cost in the one instance, including your investment in the terminal, expense of maintaining those terminals, and on the other hand merely the expense of handling a given commodity in the terminal: which are you referring to?

A. I was referring to the actual expense of handling the commod-

itv.

In other words, we handle a very much larger volume of business in St. Louis or Kansas City terminals, of course, than we do in the smaller terminals. Naturally, it costs more per ton to handle them in the smaller terminal.

Q. When you consider the value of the property invested 3936 in the terminal in St. Louis, compared with Malvern, you would not say that it costs more to handle a ton of freight in Malvern

than it would in St. Louis, would you?

A. I would not say it, perhaps, referring to cost. If I were referring to that feature, I would say that that would be a question of profits there.

Q. You never write in your lexicon the word "losses," do you? It

is always a question of profits?

A. We try not to write "losses," Judge.

Q. It seems you have written it rather largely in regard to state business, have you not, in the state case?

A. Probably those are rates beyond our control. I am talking

about rates we control.

Q. You control these Memphis rates that you based on-A. No, sir.

Q. Why not?

A. Because they are controlled by the state rates. Q. You adopted them voluntarily, did you not?
A. We had to.
Q. Who compelled you to?
A. The rates in themselves.

Q. I thought you said that was due to an agreement with the city of Memphis?

A. To a certain extent it was, yes, sir.

Q. Memphis did not compel you to do it in the sense that the Interstate Commerce Commission would compel you to 3937 cancel a tap line or the Arkansas Commission would compel you to haul at a given rate?

A. Yes, as a matter of fact, the Interstate Commerce Commission says—the law now says you cannot exceed a combination of locals. That is one of the controlling facts that make our rates from Memphis to Arkansas as they are.

Q. You say the law says you cannot exceed a combination of

locals?

A. Yes, sir.

Q. Where is that?

A. It is in the new law. Q. That was not the law when we were out here in the winter?

A. No, but it is now, although the same theory was in effect

then as it is today. They made it stronger and put it in the law

Mr. HILL: That is all.

- J. D. Watson, a witness of lawful age being duly produced. 3938 sworn and examined testified on behalf of the complainant as follows:
 - · Direct examination.

By Mr. MOORE:

Q. You have been on the stand before?

A. Yes, sir. Q. You are Assistant General Freight Agent of the St. Louis Southwestern Railroad, I believe?

A. Yes, sir.

Q. Mr. Bragg, a witness on the part of the state, in speaking of the differentials in favor of St. Louis and other points over St. Louis testified that the same basis was closely followed in making interstate rates to interior or local points in Arkansas, using Little Rock as the hub or basing point in that system of rates:

I wish you would state if the length of haul affected that system

of rates and if so in what way?

A. The length of haul affected all the rates to Arkansas, whether they were based upon differentials; upon arbitrary over the state rate; upon a combination through the junction point within the state, or upon a differential basis as to destination.

3939 The method of arriving at the rates from the point of origin was an arbitrary adjustment over Memphis, and in order to make that clear as to the rates to Little Rock and Pine Bluff, I have prepared a small exhibit which will clearly show the difference as between Memphis, Cairo, St. Louis and Kansas City,

to Little Rock and Pine Bluff.

These differentials were used in making the rates to Little Rock and Pine Bluff and points based thereon; the rates to the points beyond Little Rock and Pine Bluff being adjusted either by combination or differential over the Little Rock rates, thus preserving the length of haul both as to origin and destination as a controlling factor in making the rate.

The exhibit just referred to is marked "Complainant's Exhibit 50, J. D. Watson, 10/7/10 M. J. C." and is in the words and figures following to-wit:

Exhibit 50, see Volume 8, page 5679.

3940

Q. Go ahead with your statement.
A. I have completed that statement in connection with that exhibit.

Q. Mr. Bee, a witness introduced by the state, stated that there is no relation whatever between state and interstate rates because of the difference in the haul of the two classes of business:

I wish you would state what you think about that and if the

difference in the length of haul destroys that relation?

A. The difference in the length of haul could not destroy the relation as between state and interstate rates for the reason that the state rate in Arkansas to a controlling extent bases the interstate rate.

In the case of the distance referred to in Mr. Bee's testimony, St. Louis 500 and some odd miles, as against 50 miles within the state, the relation was still there, but it would require a rate man to check that relation to show what the relation really was and how the one rate affected the other, or would affect the other, but the difference in the distance as stated by Mr. Bee, would make it difficult for him to understand from the railroad's record just where the relation lies.

There is a very clear relation as between all state rates and all interstate rates operating into the same territory. That is pretty well shown in the testimony in regard to the sugar rate in Arkansas.

The sugar rate from Helena to various points in the state of 3941 Arkansas was fixed upon a maximum basis of 13 cents. That added to the rate to Helena from New Orleans, made the rate from New Orleans to the various points in Arkansas, the maximum rate being 25c., which was the exact Helena combination.

That is also shown to a very marked extent in all of the adjust-

ments in the state of Arkansas.

Our adjustments in the territory south of Pine Bluff is probably

one of the best examples of this.

We had no rails of our own into Memphis and the rate from West Memphis to our territory did not necessarily force us to apply the West Memphis rate plus the bridge, but the reduction in the rate from Pine Bluff—taking the rate that was then in effect to Pine Bluff—made it necessary for us to reduce the rate from Memphis to the stations involved south of Pine Bluff, and I have prepared an exhibit which will show without an endless amount of detail these differences and the reductions which were caused in our rates from Memphis by the Arkansas Commission adjustment.

In making this exhibit I have selected the commodities that are moving commodities, ones that amount to something, and have shown in the column numbered one, the rates that were in effect from Memphis to these stations when the Arkansas Commission

Standard Distance Tariff was made effective.

In column numbered two I have shown the rates as readjusted to the Arkansas Commission basis, which became effective 3942 September 6, 1900.

In the column numbered three I have shown the reduc-

tions which were caused by this readjustment.

In referring to the commodities I have selected such commodities as wire and nails, canned goods, packing house products, salt, and the commodity rate on mattresses, less than carload, and spring beds set up, less than carload.

A glaring example of this reduction would be the rate to say

Stephens, Arkansas, on the spring beds set up.

The rate in effect prior to the Arkansas Commission basis was \$1.96 per hundred pounds. Effective with the readjustment incident to the Arkansas State rate, the rate becomes $93\frac{1}{2}$ cents or a reduction of $$1.02\frac{1}{2}$ per hundred pounds, cutting the rate more than one-half in two.

The exhibit last referred to is marked "Complainants Exhibit 51, J. D. Watson, 10/7/10 M. J. C." and is in the words and figures as follows to-wit:

For Exhibit 51, see Volume -, page -.

3943 Q. Did the rate put into effect by the Arkansas Commission render it necessary to make these reductions that are shown in Exhibit 51?

A. It was necessary to do that in order to prevent the movement of the commodities into Pine Bluff and reshipped from Pine Bluff to destination.

I might make a further statement in connection with that exhibit,

which will make it probably more clear.

The rates from Memphis to these stations south of Pine Bluff were not compiled in our interstate adjustment on the basis of the Arkansas Commission scale. Had they been the reductions would have been much more severe than is shown.

For example, take canned goods: the maximum rate within the state of Arkansas—which would, of course, cover those distances from Memphis, plus the bridge—would have been 24 cents per

hundred pounds.

The rate on canned goods, less than carload, would have been 30 cents per hundred pounds; where, you will find by referring to the statement that our rates on canned goods, carload, under the new adjustment, to Louisville, in the southern portion of the state, was 33 cents per hundred pounds, and less than carload, 41 cents per hundred pounds.

I make that statement so as to indicate to you that we did not observe the Arkansas Commission scale, either one line or two lines, in adjusting our rates into that territory, but were forced on account

of the Arkansas Commission scale operated from Pine Bluff 3944 and the low rates into Pine Bluff to adjust our rates to a basis which would approximate the combination of locals.

Q. Were any changes made in the case of the commodity rates that had an influence on that adjustment by the Arkansas Commis-

sion scale?

A. The commodity rates that were established by the Arkansas Commission, both carload and less than carload, were a larger list than was operated under the Interstate adjustments and forced the addition of commodity rates, both carload and less than carload, to our commodity list as follows:

Beer, less than carload; barrels, carload; canned goods, carload and less than carload; excelsior, carload; fire-brick, carload; furniture—first, second, and third and fourth classes, Classes A, B and C,

with special description for each.

Ice, carload and less than carload; mattresses, carload and less

than carload; spring bed, carload and less than carload; pottery and

stoneware, carload

In addition to establishing these commodities which took the rates out of the class rates and established a special commodity rate thereon, the Commission very materially reduced the then existing commodity rates, both carload and less than carload, by their very low scale within the state.

Q. Independent of the reduction mentioned in your last statement, what effect did the change from class rates to commodity rates

have, on the commodities you have enumerated?

A. It reduced the rates very materially. 3945

Q. Do you remember the testimony of Judge Wallace, who was the Chairman of the Commission at the time the first Com-

mission Tariff was put into effect, in which he stated:

"Interstate rates on the Frisco from Missouri and Arkansas points north of Fort Smith and out of Fort Smith were lower (that is, prior to the Commission rates) than Arkansas rates from Fort Smith and north of Fort Smith, and the Fort Smith jobbers could not compete for the business; and a tariff was put in effect by the Commission for the purpose of reversing that order of things."

Do you remember his testimony in that respect? A. I do.

Q. Do you know anything about that tariff and its effect? Say

what you know about it?

A. The knowledge that I have of it is based upon the information I received from the line that was involved, the Frisco, at that particular time, at hearing the discussions before Judge Wallace.

Q. Now, Judge Wallace stated it had that effect: that is to say, that it transferred that trade from Missouri points north of Fort Smith into Fort Smith to enable that town to compete with other points north:

How did it have that effect?

A. That would be the natural effect.

Q. How?

A. For the reason that the rate into Fort Smith plus the rate out, under the very low Arkansas Commission scale covering all the commodities that would necessarily move from Fort Smith into that territory, would make a lower through rate than the 3946 rate into Springfield, which was the point involved, or Joplin. any of the jobbing points in that district, plus the rate from Spring-

field or Joplin into this territory.

Q. A good deal has been said in this case in regard to certain zones in connection with trans-state business and the rates applicable between points embraced in the territory covered by the zones.

I wish you would state what effect, in your judgment, the development of that character of trans-state business had upon other classes of business and rates that obtained in respect of other classes of business.

A. The more trans-state business you can secure, the larger your volume and the less the cost per unit, trans-state business on account of its length of haul being probably the cheapest traffic you handle.

The rates on the trans-state traffic are usually fixed for you. They are rates in which you have no control, as a general proposition, and it is a question with the carrier in soliciting and securing trans-state traffic to increase that particular class of traffic on the line so as to increase the total tonnage, secure the long haul freight and by that means reduce the cost of handling all other freight within the state, as long as you do not go beyond the capacity of your railroad. Until you do get to the capacity of your railroad that appears to be the proper principle.

Q. Mr. Watson, the state introduced evidence for the purpose of showing that the revenue per ton per mile on your road was 96 per cent more in the month of January, 1909, than it

was during a period, comprising the last six months in 1907:
Was this assumed increase brought about by the increase in the

state rates?

A. I should say not. The increase in the revenue per ton per mile, which I understand that statement shows can be brought about by various conditions, only one of which is increase in rates. There might be a shifting of tonnage, change in the character of traffic that you handle during this month of January, as compared with the average for the preceding six months. That would be true of both state and interstate.

Q. Is a change in the revenue per ton per mile indicative of a corresponding change in the revenue received for the same period?

A. No, there could be an increase in the revenue per ton per

mile and a decrease in the revenue received.

Q. One of the exhibits introduced in this case (filed I think, by Mr. Kimbell) indicates an increase as between the last one-half of the year 1907 and January 1909, of 96% of the revenue per ton per mile:

I wish you would state if, in your judgment, there was that increase in the revenues as compared with the business done in those

two periods.

3948 A. I don't believe it could possibly be. I might explain why I think that.

The revenue per ton per mile does not necessarily indicate any-

thing as to the revenue one way or the other.

The higher class of traffic that you handle the more your revenue per ton per mile would be, but if you can increase your tonnage and reduce the character of it—that is, make it a lower character, your revenue per ton per mile would necessarily decrease, while the volume that you would handle at the decrease revenue per ton per mile would still increase your revenue very materially.

Now, I don't believe it would be possible, on the Cotton Belt, for a difference of 96% in the revenue to occur between any two months or between one month and the average for any period, because I

don't believe it changes or shifts that much.

3949 Cross-examination.

By Mr. HILL:

- Q. I don't know that I got your last answer: Are you questioning the accuracy of Mr. Kimbell's figures, is that the idea?
- A. No. sir. Q. Mr. Kimbell is one of my witnesses and I didn't know whether you were questioning the accuracy of his calculations or not.

A. No, sir, I was not.

Q. But you think that it was the shifting of traffic and not a shifting of rates that produced that strange, abnormal result: is that it?

A. I do, yes sir.
Q. The rates did not have anything to do with it?
A. The rates would not necessarily affect the revenue per ton per mile, to that extent.

Q. I am not saying "necessarily," but did they actually? A. I can most positively say that it did not, to that extent.

Q. To what extent did it?

A. At the outside, I should say to the extent of fifty per cent. That is, I mean in revenue; not revenue per ton per mile. I am talking about the actual dollars and cents we received for transporting the traffic.

3950 Mr. Moore:

Q. You mean it would be fifty per cent, or not to exceed fifty per cent?

A. Not to exceed fifty per cent.

Mr. HILL:

Q. Then these rate increases, in your judgment, did not exceed fifty per cent?

A. No; the revenue.

Q. That the revenue produced from your rate increase on state rates did not exceed fifty per cent: is that your answer?

A. No, that is not the answer. You were talking about revenue

and now you are talking about rates.

Q. I am talking about revenue produced from that increase of rates.

A. The revenue produced from that increase of rates would be very hard to say unless we had the actual tonnage. I am only comparing actual figures, as I recall them, covering the revenue derived from traffic in January 1909, as compared with revenue derived from the same traffic in 1907 rates, and my recollection is that it is somewhere in the neighborhood of forty-five or fifty per cent; not to exceed fifty per cent.

Q. You mean by that what I mean: that your revenue was increased forty-five or fifty per cent by reason of that increase in state

rates?

A. Yes. I will admit it just as you say it.

Q. No, I don't want you to do that, but I want to know whether you believe that to be a fact?

3951 A. That is what I believe to be the fact, as far as applying

the increased rates—

Q. From forty-five to fifty per cent, you say?

A. Yes, sir.

Q. How much do you think the revenue was increased in your interstate rates, by reason of having the increased interstate rates that you put in a short time after you increased your state rates?

that you put in a short time after you increased your state rates?

A. The interstate rates were not adjusted a short time after the state rates were put in. It required some eight or nine months to make the majority of the changes. Some of them are still being made.

Q. I understand that. But you put in a new tariff in December increasing your interstate rates: when did you increase your state

rates-the 2nd of November?

A. Yes, sir.

Q. Now, that is the tariff I am talking about. You have changed that after that and are still changing but I think you herctofore testified that the changes after that were not material: do I recall correctly?

A. I don't recall making that statement, because I don't believe I would have made that statement. The rates that you have refer-

ence to are to the common points.

Q. What I am talking about is your increase of interstate rates which you made in December, following your increase in your state rates in November, 1908:

3952 How much increase of revenue did that produce, compared

with 1907?

A. It would be very difficult to say that, Judge, without an analysis of the movement during that particular period.

Q. Mr. Kimbell's figures showed nine per cent—in round figures; I have forgotten the fraction—on revenue, in interstate, in January.

A. That is revenue per ton per mile.
Q. Yes, on interstate, in January 1909?

A. That condition could have been very readily obtained-

Q. I am not asking that: what I am trying to get at is what was done: how much of that nine per cent per ton, per mile, was due to the increase of interstate rates?

A. I don't believe you can get that information without an analysis of the interstate tonnage handled during that period.

Q. Really you cannot do anything about that increase of revenue per ton, per mile, without that analysis on both sides?

A. I don't think so.

Q. You are only guessing?

A. We are not guessing on that state proposition, for the reason that we got those figures. The State required us to keep them and we know.

Q. You have what figures?

A. The difference between the revenue derived from the state rates and the revenue derived from the court tariff, and the revenue before the voluntary—

Q. Thia was before the court tariff went into effect in 1909. The court tariff did not go into effect until the first of June. Have you any figures on that? If you have, I would like to have them.

A. I don't know that we have any figures.

Q. Has your office any figures? A. I think we can look that up.

Q. Will you undertake to get that for us?

A. I will undertake to ask Mr. Kimbell to get them for you.

Q. I would like to have those very much.

You have not made an estimate on your increased revenue for January, due to an increase of your interstate rates. I would like to have your best estimate on that. You have estimated the state to be from forty-five to fifty per cent. Now, I want to know what you think the interstate was.

A. I have estimated the state from my recollection of the results. I cannot remember the interstate because I haven't any recollection

of the results, because we haven't any results.

Q. What do you think it would be——
A. I don't think there is any appreciable increase in the state rates that would appear in the revenue in January 1909.

Q. I am talking about the interstate?

3954 A. I should have said interstate. I don't believe there is any appreciable change in the interstate rates that would show in the revenue for January, 1909.

Q. Then you made an increase, according to your estimates, in

the state rate of from forty-five to fifty per cent, without any appre-

ciable increase in your interstate rates?

A. During January, 1909, you mean?

A. During January, 1909, the new state rates were in effect; the new rates established by the railroads and the Commission for application in the state, were in effect, and there had not been sufficient time allowed to permit the railroads to re-adjust their interstate rates.

Q. Why not? You got your injunction from Judge Van Devanter about the 1st of September and you required only thirty days in

which to put in a new tariff?

A. It requires somewhat longer than that to put in a tariff. We tried to put in the state tariff effective October 15-

Q. You put in your tariff on the interstate rates in January?
A. Not all of the interstate rates: Arkansas common points, and only a portion of the rates to the Arkansas common points. You cannot adjust them all together. The rate fabric is one that you cannot possibly re-adjust from one end of the state to the other, at one time.

Q. How long does it usually take to do that?

3955 A. A pretty fair example was this. Here is a case where we had to reduce our rates, shown by that exhibit (indicating), which required from April to September to prepare those figures and put them into shape.

Q. During such period as that, what would you say was the relation between your state and interstate rates?

A. During what period?

Q. Such a period as you are describing: when you put your state rates in and it takes a long time to put in your interstate rates?

A. They are in a very bad condition; as far as the relation is concerned, there is no relation. You have destroyed the relation.

Q. There is no relation there at all?

A. Not until such time as the rates are adjusted.

Q. What do you mean by "relation"?

A. I mean that the state rates base the interstate rates.

Q. Control them, in other words?

A. Yes, sir, control them.

Q. When you have been referring in your testimony to relation between state and interstate rates, you are not referring to the cost relation of carrying those commodities, state and interstate, but you are referring, as I understand you, to the effect that the state rate

has on the interstate rate: is not that true?

A. That is true; yes. Both sections of the question are

true.

3956

Q. Both of them?

A. Yes. There is a cost relation always, regardless of what the scale rates may be.

Q. What is that cost relation?

- A. That is brought about by the adjustment produced by the classification.
- Q. Do you know the cost of carrying any commodity, Mr. Watson?

A. The actual cost of carrying any one commodity?

Q. Yes.

A. No. I don't think anyone does.

Q. You cannot very well adjust the cost relation without having any statistics?

A. Yes; that is what we prepare the Classification for. That is

exactly the object of the classification.

Q. The classification is the only cost relation that there is in fixing the adjustment between state and interstate, is it not?
A. I don't believe I quite eatch the object of your question.

Q. Well, no matter what the object of it is, if you understand the question.

A. I only want to answer it properly. I can answer it two ways.

3957 Q. Answer it both ways.

A. The cost relation as between state and interstate rates

is the classification. That is the cost relation.

Now, there is another cost relation as between state and interstate rates and that is where your state rate becomes so low that the railroads do not feel they can meet that low rates and carry the traffic.

Q. Then they just go out of business?

A. Yes; as the Cotton Belt has done in quite a number of cases.

There is quite a little business to Little Rock based on state rates, that they don't handle.

Q. The only way you can adjust any cost relation between state and interstate rates, so far as you know, is through the classification

of the various commodities and classes? A. That is the method of arriving at the cost relation.

Q. So far as you know, that is the only method?

A. It is the only method so far as the class rates are concerned, yes, but there is quite a large list of commodity rates.

Q. How do you adjust them?

A. Those are adjusted as near as we can do so.

Q. Just by intuition?

A. And judgment—"guess" I believe you call it.

Q. Mr. J. M. Johnson called it "guess." I did not call it that, You have the average cost per ton per mile on all your commodities, and then when you have that, in fixing rates you exercise your judgment (or, as Mr. J. M. Johnson says,

exercise your Guessing power) to determine what the rate ought

A. No, not altogether. To determine what the minimum rate ought to be, but not what the rate ought to be, because there are a

great many other conditions that fix that rate. Q. But that is the only way you get at a cost relation—the way

in which I have indicated?

A. That is the only way you prevent yourself from handling

traffic which you should not handle.

Q. Your first exhibit, number 50, gives the class rates to Little Rock and Pine Bluff from Memphis, Cairo; Memphis-St. Louis; and Memphis-Kansas City-

A. Maybe I can make a statement that will explain.

The exhibit only shows the difference between the rate from Memphis to Little Rock and Pine Bluff, and the rate from Cairo, St. Louis and Kansas City to Little Rock and Pine Bluff, showing the "differential" that has been so often used in the discussions in regard to this matter. Q. This (indicating on exhibit) should be "differential" here,

instead of "difference"?

A. No, that is actual difference. Those are the differences in rates-

Q. Is the "difference" and "differential" the same thing? A. The "difference" and "differentials" are the same.

Q. Do I understand you to say that you put this in to show 3959 that so far as the rates are concerned, that the length of haul was observed?

A. That the length of haul is observed. That the differential which is used in making the relation, has a relation to the length of haul. The further you go from Little Rock the higher the rate becomes.

Q. You have got Little Rock and Pine Bluff down here at the

same rate: is that true?

A. They do take the same rate.

Q. There is a difference in the haul there?

Yes, sir.

Q. You did not observe the difference in the length of haul?

A. It is not so great.

Q. It may be little, but it is there.

A. The difference in the haul, between Little Rock and Pine Bluff. I would say, taking the average Iron Mountain one way and the Cotton Belt the other, is probably fifteen miles.

Q. What is the rate on first-class goods, from Memphis to Cairo?

A. From Memphis to Cairo?

Q. Yes. A. I couldn't tell you, offhanded. It is something about 3960

fifty cents per hundred pounds. Q. You make a difference on this of twenty cents, running from Cairo, through Memphis, to Little Rock and Pine Bluff?

A. We haul it direct from Cairo to Pine Bluff, not through Memphis.

Q. Take it from St. Louis?

A. We would not haul it from Memphis to St. Louis.

Q. No; I mean, take the St. Louis rate instead of the Memphis You have the St. Louis rate here, to Little Rock and Pine Bluff:

What would be the difference on that haul to Pine Bluff? Forty-

five miles, would it not?

A. The difference between St. Louis and Cairo to Pine Bluff and

Little Rock?

Q. No; St. Louis to Little Rock and Pine Bluff; same rate; on a difference of forty-five miles? A. That is one of the conditions brought about by something else

besides cost of service-

Q. I am not talking about that: I am trying to find out the differ-

ence. A. The Iron Mountain distance from St. Louis to Little Rock is 345 miles.

Q. And what is it to Pine Bluff?

A. Forty-two miles further, on the Iron Mountain. Our distance would be 402 miles.

Q. How much distance is disregarded, then, in those 3961 rates?

A. How much is distance disregarded in those rates?

Q. Yes.
A. The rate to Little Rock and to Pine Bluff being the same from Memphis, the rate from St. Louis is differentially adjusted to the Memphis rate.

Q. I am trying to get at how much distance is disregarded on the

same rate from St. Louis to Little Rock and Pine Bluff?

A. You mean by the Cotton Belt?

Q. By both of them.

A. By the Iron Mountain the difference in distance is 42 miles. Via the Cotton Belt the difference in distance is in favor of Pine Bluff about 30 miles.

Q. One road disregards 30 miles and the other disregards 32 miles? A. One road disregards 30 miles to meet the competition of the other road at Little Rock, and the other road disregards 42 miles to meet the competition at Pine Bluff.

Q. This table, then, does not prove that you have regarded dis-

tance very strongly in fixing these rates, does it?

A. It proves that the difference in the distance is a factor in making the rate from St. Louis, Cairo and Kansas City to Arkansas points, as compared with rates from Memphis upon which they base.

Q. I believe you gave us some examples the last time you 3962 were on the stand, about rates from St. Louis to Paragould. and carrying the stuff right on through Paragould to Memphis:

Distance was disregarded in that, was it not?

A. Yes, sir.
Q. Did you not also give some examples of traffic being carried right through Arkansas to New Orleans for less than if that same traffic was stopped in Arkansas and delivered there?

A. Yes, sir.

Q. Also to Helena and Arkansas City?

A. Yes, sir.

Q. In all those cases distance was disregarded, was it not? A. Distance would not be the controlling factor. It is not dis-

regarded entirely. Q. Would you not say it was disregarded when you charge more

to take some stuff to Pine Bluff than you would to take it to New

Orleans, carrying it several miles further? A. The same competitive conditions did not exist at Paragould

That is what caused that difference in that existed at Memphis. adjustment. Q. The facts are that distance was disregarded in all those New

Orleans rates as compared with hauling the same stuff in Arkansas? A. I can't agree with you.

Q. How much of a lopping off of distance would you re-3963 quire, before you would say distance was disregarded?

A. If you will select rates that are governed by the same conditions in other respects, you will find that the distance feature is always borne in mind.

Q. I am not arguing that you have committed a sin in doing

that, but I am just trying to get at the basis.

Take pianos, from St. Louis, on the Iron Mountain to Little Rock, and then on through Little Rock to New Orleans; what is the difference in the rates?

A. I don't recall the figures now. I understand the rate to Little Rock is higher than the rate to New Orleans. It is probably about

the same on pianos.

Q. Then you would have to haul them all the way from Little Rock to New Orleans, and get less money for hauling them to New Orleans than you would for delivering them at Little Rock?

A. Or stay out of the business entirely.

Q. That is the situation?

A. Yes, sir.

Q. You say you do not regard a rate like as disregarding distance?

A. I don't, no; for the reason that that particular traffic is traffic that you must participate in on the basis that you can get it or do without it entirely, and I don't believe that the difference in the cost of handling that particular traffic would justify staying out of it.

3964 Q. That is a very good reason for going into it and I would agree with you if you would say that distance ought to be disregarded.

A. Maybe I can understand you better now. It is disregarded to

that extent.

Q. As a matter of fact, it is disregarded and you think it ought

to be under such circumstances as you have stated?

A. Yes, but you are comparing one rate governed by one condition, with another rate governed by another condition, and in regard to those particular rates you must disregard—

Q. I would not for a moment attempt to argue with you, but I

am trying to show that it was disregarded.

A. It is disregarded.

Q. Now, take the citrus fruit rates from California to Arkansas, and on through Arkansas to New York and Boston:

Distance is disregarded in those rates, is it not?

A. That is a blanket or zone rate, yes.

Q. In which distance is absolutely disregarded, carrying the same thing, for varying distances of more than one thousand miles in the zone?

A. Yes, sir.

Q. Now, Mr. Watson, I want a little explanation of this exhibit number 51:

Take your first column and first item, which is "Canned goods,

carload":

3965 The rate in effect on April 10, 1900, to the first station was 30 cents. Then after the Commission tariff went into effect you reduced that to 24 cents:

What does that prove?

A. It proves that if the Commission tariff had not been made effective we would still be making six cents per 100 pounds more than we were after the Commission tariff became effective.

Q. Then your Commission tariff reduced all your interstate rates

to the amounts shown in the third column of this exhibit?

Mr. Moore: Not to the amount; by the amount.

A. By the amount.

Mr. HILL:

Q. Yes, that is right. Shown in the third column of each one of these separate——

A. Yes, sir

Q. You do not mean that your interstate rates became the same

as your commission rates, but this was the effect that the Commission rates had on it: is not that true?

A. Yes, sir.
Q. What was the Commission rate on that first item you have?
A. The distance from Memphis to Sorrels is 160 miles. T Commission rate on canned goods, carload, for 160 miles, would have been 16 cents.

Q. You made it 24 cents?

A. We made it 24 cents. Q. Now, is that a fair example of the way everything runs

in this Exhibit number 51?

A. That would not be a fair example because it does not show a sufficient amount of difference. By going down that column you will find some places where it reduced the rate sixty per cent.

Q. Let us take some other. I want the actual situation about

this.

3966

A. If you will not use the first distance, but the distance down about Eagle Mills, for example-

Q. I see Fordyce down here and I know Fordyce is a pretty good

size town.

A. That is a fair example, but I just wanted to get the average

Fordyce is 40 miles south of Pine Bluff. Eagle Mills is quite a

little town.

3967

Q. I don't know Eagle Mills, but let us take Fordyce: the old rate was 44 cents, but after the Commission rate went into effect it was 28 cents:

What was the Commission rate for that corresponding haul?

A. The distance from Memphis to Fordyce is 195 miles, and the rate for 195 miles, under the Commission tariff, would be 16 cents. Q. And you reduced it to 28 cents?

A. We reduced it to 28 cents.

Q. As against 44 cents?

A. Yes, sir.

Q. Now take your Eagle Mills that you want to compare with.

A. Sixty miles, and the rate shown here, prior to the Commission tariff, was fifty cents; subsequent to the Commission tariff, thirty cents.

The distance from Memphis to Eagle Mills is 215 miles, and the Commission tariff rate for that distance, on canned goods, carload, would have been 17 cents per hundred pounds.

Q. Now, is that a fair example of the rates which prevailed, inter-

state, as against prevailing Commission rates? A. Yes, that is a fair example to that particular territory. Now, if you will go down to Lewisville, further down-

Q. Wait a moment.

Your interstate rate on that canned goods movement there was 30 cents: for a similar movement of canned goods, under the Commission rate, a state movement, the rate was 17 cents?

A. Yes, sir.

Q. Going back to Fordyce: your interstate rate was 28 cents and the Commission rate 16 cents?

A. Yes, sir.

Q. Going back to Sorrell: your interstate revenue was 24 cents. and your Commission rate, I believe, was 16 cents?

 A. Yes, 16 cents.
 Q. Is that about the proportion that your interstate rates 3968 will hold to your state rates?

A. On canned goods, ves.

Q. Well, does that proportion hold good as to these other commodities?

A. No, sir, it does not.

Q. About what proportion?

A. It would be necessary to take each and every rate in order to get that proportion. We could not get a general average on account of the peculiar manner in which this state tariff was constructed. It is different from any other tariff we have got. It was placed on a different basis than any other rate adjustment we had ever seen, or have seen since.

Q. It was a strange and abnormal being?

A. Yes, sir; absolutely. Some of the rates were really ridiculous. Q. Now take some of these other things as an example: I want

something where there is considerable movement.

A. Take the wire and nail movement. There is a pretty good movement of that in carload and less than carload.

Q. Is this wire and nail example taken on the commodity?

A. It is taken upon the commodity description of wire and nails, ves, sir,

Q. Take some point there that you think is fairly representative

of the situation we are trying to get at.

A. That is what I tried to explain. There is no point that is fairly representative, for the reason that the scale in the Commission tariff is one that does not follow any regular basis. You have a maximum for three hundred miles which applies, regardless of the distance you handle the shipment over the three hundred miles.

Q. Then you cannot keep up a very good parity between the

interstate and the state rate?

will illustrate your point.

A. We did not attempt to do so. The only parity is to prevent the business being consigned to one point and reconsigned from that point at a rate less than our through rate.

Q. You did not attempt to preserve any parity during the existence of the Commission tariff between your interstate rates and

the Commission rates themselves?

A. For distance, no. Q. To illustrate that fact take some point, on wire and nails, where there is considerable movement: You will know best what

A. Take Fordyce, the same point you selected before.

Q. There ought to be considerable movement from Memphis to Fordyce on wire and nails.

A. I will say for your information that the American Steel & Wire Company store their wire and nails at Memphis and make their carload and less than carload shipments from that point.

3970 At Fordyce, prior to the Commission tariff, the rate was 36 cents (column 1); subsequent to the Commission tariff

it was 20 cents. The reduction was 16 cents.

Q. What would the Commission rate have been on that?

A. The Commission rate from Memphis to Fordyce, on wire and nails, would have been 14 cents; distance, 195 miles.

Q. Then your interstate rate was six cents above the Commission

rate?

A. Yes, sir.

Q. Now, take it on wire and nails, less than carload, at the same places: I reckon there is a good movement of that, is there not?

A. Yes, sir.

From Memphis to Fordyce, the rate on wire and nails prior to the Commission rate, was 45 cents; subsequent to the Commission rate it was 31 cents; a reduction of 14 cents per hundred pounds.

The rate from Memphis to Fordyce, a distance of 195 miles, would

have been under the Commission tariff, 20 cents.

Q. There is a difference of 11 cents, then, between your interstate rate and the Commission rate on that same movement?

A. Yes, sir.

Q. Those are pretty long hauls for the Commission rate. Take some point of about an average state movement, say afty miles, and make some comparisons there.

3971 A. The Commission rate on wire and nails, for a distance of fifty miles, carload, was eight cents; less than car-

load, 14 cents.

Q. Pick out some station here that would be covered by that rate.

A. You cannot, because the distance from Memphis to——Sor-

rells is the first station, a distance of 165 miles.

Q. Have you anything in this table that you can make a comparison with—I believe it is in evidence here that on your road the average state haul is something like fifty miles: I have forgotten the exact figures.

A. Thirty-four miles.

Q. If you are certain about that we will go ahead.

A. No, I am not certain, but that is my recollection of the Janu-

ary, 1909, exhibit.

- Q. I was thinking of the six months' exhibit. (After examining record.) Well, it is about 41 miles. That seems to be the average haul on your road for state business. Take a distance of about forty-one miles.
- A. Say forty-one miles. That is approximate. From Pine Bluff to Fordyce the rate would be the forty-mile rate on wire and nails, carload, eight cents; less than carload, fourteen cents.

Q. That is the Commission rate?

A. Yes. The Commission rate would be, for 155 miles, the distance from Memphis to Pine Bluff, on wire and nails, carload, 14

cents; less than carload, 20 cents. That would make your 3972 through rate from Memphia to Fordyce based on a combination of locals through Pine Bluff, using the Arkansas distance tariff rate for both factors, 22 cents, carload; less than carload, 34 cents.

Q. I thought you said eight and twenty, did you not?

A. Eight and fourteen was the first, and fourteen and twenty is the second; it would be twenty and thirty-four—

Q. That would be the Commission rate?

A. That would be using the Commission rate as a basis to Pine Bluff, and Pine Bluff to Fordyce a combination of locals; using the Commission tariff for both factors would produce that result.

Our rate from Memphis to that particular point, Fordyce, subsequent to the Commission tariffff was: carloads, 20 cents; less than

carloads, 31 cents.

Q. Still that does not get at the point I am asking about: What

I want to get at is this:

The evidence here shows that the average movement on your road would be about forty-one miles, and on the Iron Mountain about seventy-two miles:

There is where the real test of the Commission rate would be, on the average state movement. There were not many movements for these long distances, under the Commission rate.

Have you any case where your interstate rates compare with 41

and 72 miles?

A. No, for the reason that the distance from Memphis to our junction point with the lines operating out of Memphis, is 3973 sixty miles. Therefore we have no rates for a distance from Memphis less than sixty miles.

Q. Then your table is comparing actual interstate movements

with comparatively few, if any, state movements?

A. No, our table is actually showing the result of the Arkansas standard freight distance tariff upon our interstate rate adjustment.

Q. But when I asked you to compare it, as you have been doing with the Commission rate, it really had no basis to compare the real movement.

The real movement under the Commission rate would not be for these distances that you have been giving?

A. No, it would not.

Q. So these tables would not serve to compare your interstate rate, under which your interstate stuff actually goes, with the state rate, under which the stuff actually goes?

A. No, sir.

Q. This is really illustrating what we might call the practical effect of the Standard Distance Tariff on your interstate rates?

A. I cannot agree with you on that work "practical". It illustrates the actual effect of the Standard Distance Tariff on our adjustment.

In other words, had we not changed that adjustment as we did change it, there would have been no movement from Memphis to

The movement would have been from Fordyce at all. Memphis to Pine Bluff, at the interstate rate, and from Pine 3974 Bluff to Fordyce at the state rate, and the result would have been that instead of handling through traffic from Memphis to stations south of Pine Bluff, we would have handled it out of Pine

Q. You had to meet a condition where a combination of other rates would let the stuff in cheaper than what your existing rates

were?

3975

A. Not a combination of other rates. A combination of the rates to Pine Bluffff, plus the Commission rates beyond.

Q. That is a combination of other rates.

A. I don't know just how you can call it that-

Q. I thought you were talking about both the Commission rates and your interstate rates; that would be a factor of both. It would be an interstate rate from Memphis to Pine Bluff.

A. Yes, from Memphis to Pine Bluff.

Q. And a state rate from Pine Bluff to Fordyce?

A. Yes, from Pine Bluff to Fordyce.

O. I believe you stated a while ago that you did not have any control over these trans-state rates?

A. Over a majority of the trans-state rates, I think I said.

Q. That is heavy traffic, like lumber and grain. Your road has no control over-

A. No, we are the intermediate carrier.
Q. You are the intermediate carrier. You have to take what the other fellows give you, or not take the stuff?

A. Exactly.

Q. That is a pretty large traffic on your road, too, is it not?

A. It is and we hope to increase it.

Q. I don't know whether you have a "bridge" on your road or not: have you?

A. I don't know anything about that "bridge", Judge. I didn't

have anything to do with that "bridge".

Q. By having no control, you mean by that having no voice in fixing that rate: You do not mean that there is any interstate Commission-or State Commission?

It is fixed by other carriers, and you being the intermediate line, have to take what the other carriers choose to give you?

A. No; what we feel we can afford to haul; not what the other carriers can afford to give us.

Q. You either put in that rate or stay out of the business? A. That is it.

Q. They cannot compel you to haul it, but they can name the rate for which you will haul it?

A. For which we must haul it,

Q. And then it is up to you whether you will haul it?

A. Yes, sir.

Q. Those rates are very varying, too, are they not? 3976 A. That is a peculiar term to use, Judge. The rates differ.

Q. They fluctuate?

A. No, they don't fluctuate. They are stable.

Q. I did not know any of the rates were stable. I thought that you were changing them.

A. We are, wherever the conditions change; we have to have a

new rate or go out of business.

Q. That is fluctuating, is it not?

A. The fluctuations are not as great as that word would indicate. Q. You say they differ. Probably that is a better word.

division sheets with the other roads will differ, too, will they not? A. There is a competition in divisions just the same as in rates.

you will understand. Q. How is that division usually made?

A. That is a very difficult question, because they are not usually made on any fixed scale. There are just as many varying conditions that enter into fixing the divisions as enter into the fixing the rates.

Q. What are the usual bases for fixing the division.

A. I can name some of them to you:

Mileage pro rate; constructive mileage pro rate; rate pro rate; revenue of locals-I could name them to you by the hour. 3977

Q. Those are the principal ones you have named? A. Yes, sir.

Q. That will make differences as to what your trans-state revenue

amounts to, as the different basis is adopted for each rate?

A. That would indicate that you understood my former answer to mean that we had different bases for the same service between different carriers offering the business at the same junction, which is not true.

Q. I did not mean that. I meant the whole body of your trans-

state business.

You have different bases to reach your trans-state revenue and

they will differ. That is what I mean.

A. It may differ as to service in different directions, but it does not materially differ for the same service, under the same conditions and on the same traffic. But if we were to take a shipment, as an example and to indicate why I am trying to differentiate-if a shipment was offered to us on a point on the Southern Pacific, we would be forced to allow a division that would compensate that line for turning it over to us.

If the same shipment were to originate on the I. & G. N., who have not this long line to New Orleans, the revenue for that line for this service would probably be somewhat less than we would have to allow

the Southern Pacific.

Therefore, on the same traffic, from two different points, on two different lines, our revenue from the junction point to 3978 destination or as far as we would handle the traffic, would be

Q. Your service would be the same but your revenue would differ: that is the point I am trying to get at, and which I understand is a fact.

A. That as a general statement would not serve, but would have

to be confined to the various kinds of traffic.

Q. Have the examples which you have taken up about that in Exhibit 51, fairly indicated the situation which you intend to represent, without going into further detail about it?

A. I don't know what you mean by "fairly" used in that connec-

tion, Judge.

The statement as it stands is indicative of the adjustment to the territory covered, and the questions you have asked in connection with the individual stations would indicate the differences at those particular stations, but would indicate the principle to all the stations.

Q. That is what I want to get at: have I asked you enough detail in bringing out these questions about Fordyce and Eagle Mills and these other points that you have taken in detail, to fairly represent, not in dollars and cents, but the principles you are seeking to

show by this? A. Yes, sir.

Q. There is a word that you used there, that I was questioning Mr. Perkins about yesterday: I want to know if you use it in the same sense that he does, and that is the word "adjustment": what do you mean by rate "adjustment"?

A. That is a term that is used in connection with any body of rates. It is the method of making them; the method of arriving

at the figures.

Q. As I understood it, Mr. Perkins said it was a scale; it was the rate itself. It was a term used for the rate itself, or the system of

Is that the way you have used the term?

A. I have used in both senses.

Q. What other sense?

A. Both the senses you have just referred to. One as to the scale itself, which indicates that that is the rate adjustment, meaning handing you a statement of rates or tariff and indicating that is the rate adjustment in that tariff.

The other use of the word "adjustment"—as will be indicated by the verbiage in connection with it, is adjusting one rate to another.

Q. Fitting one to the other.

A. Yes. In other words, this adjustment as a scale is adjusted to the Arkansas rates.

Q. I believe I understand the term now. That is all.

3980 Redirect examination.

By Mr. Moore:

Q. From what line of road do you reach Memphis?

A. We use the Iron Mountain rails between Fair Oaks and Memphis.

Q. I mean at the time Exhibit 51 was prepared?

A. When Exhibit 51 was made we used the Iron Mountain rails between Fair Oaks and Memphis, under contract.

Q. These rates you set out here in Exhibit 51, represent the rates from Memphis to the points that are mentioned on the two lines of road.

A. No, the points that are mentioned on our line, but they repre-

sent the rate from Memphis over the route, via Fair Oaks.

Q. Your Company handles that business in and out of Memphis by using these leased rails?

A. Yes, of the Iron Mountain. Q. Is there a bridge charge?

A. Yes, there is a bridge charge.

Q. What is that?

A. That varies according to the class commodity.

Q. What is it on Class 1? A. According to my recollection it is two cents. I would not be sure of that. You mean first-class?

Q. Yes.

A. Five cents.

Mr. HILL:

Q. Has not that been changed? Was it not two cents?

A. My recollection is that it is five cents, less than carload: 3981 and two cents for carload. I only testify from recollection. I cannot state as a fact.

Q. Does your road get any part of that bridge toll or does that go to the bridge Company?

A. It all goes to the bridge Company.

Mr. MOORE:

Q. Are the factors that you referred to a while ago as affecting the rate division between connecting lines, applied to varying conditions that exist on different hauls on different roads?

A. The lengths of the haul and competitive conditions

Q. You were asked what figured in the division and you spoke of mileage and other factors, a number of which you enumerated:

What I want to know is if those factors operate and apply to the varying conditions as they may arise in different territories, or on different lines, or on all different commodities?

A. They do. Sometimes you will find several of the rules that I

have shown in one set of divisions between two carriers.

In other words, the division on one rate will probably be on a mileage pro rate. On another rate, with the same carrier, a constructive pro rate; and another, a revenue pro rate or a rate pro rate.

Q. It depends upon the particular condition that exists as to the subject matter of the arrangement; but those factors are ap-3982 plied to the varying conditions that may arise: that is what

I want to understand?

A. Yes, sir.

Q. You spoke about the increase in revenue on interstate business, as between two periods-January, I believe, and the last half of 1907, and you were asked what the increase in interstate revenue was:

Mr. Bragg testified that there had been some increase in interstate revenue before the increase of the state revenue following the injunctions in these cases in 1907 and again in September, 1908:

Did that affect the ratio of the increase any?

A. It affected the revenue in January, 1909, yes, but to what

extent it would be impracticable to say.

Q. I understand that, and you are not attempting to say whether the increase between January, 1909, and the period in 1907 was,

either? You don't know?

A. I couldn't possibly say. I might add there, in connection with the testimony of Mr. Bragg, that the changes in rates that were made in the time referred to by Mr. Bragg, are not in any way based upon the state conditions. Those were readjustments of interstate rates which were not materially affected by the state rates.

Q. I want to call your attention to another matter in connection with the relative rates from St. Louis to Pine Bluff and Little Rock on the Cotton Belt and on the Iron Mountain lines; 3983

I believe business from St. Louis to Pine Bluff, on the Iron Mountain, goes through Little Rock, does it not?

A. Yes, sir. Q. And business to Little Rock, on your line, practically goes through Pine Bluff?

A. It goes to Altheimer, twelve miles north of Pine Bluff.

Q. You, therefore, have the short line from St. Louis to Pine Bluff?

A. No, we haven't a short line from St. Louis to Pine Bluff. On the Iron Mountain the distance to Little Rock is 345 miles, and Little Rock to Pine Bluff is 42 miles, making 387 miles with them, and with us it is 402 miles, the difference being very small-387 miles as against 402.

Q. What affect do those conditions have upon the relation of the

rates as fixed on the two roads?

A. The Iron Mountain fixing the rate to Little Rock would make it necessary for us to make the same rate or go out of business.

The distance from Memphis to Pine Bluff, via our line, and Memphis to Little Rock, via the Iron Mountain, is practically the same and the same rates will apply, and the adjustment to Little Rock and Pine Bluff and points taking the same rates from St. Louis, is differentially fixed on Memphis, which would make the rate from St. Louis to Little Rock and Pine Bluff the same.

Q. Comment was made by counsel on this exhibit 51, in 3984

regard to its showing no mileage:

The effect that that does have is to show the effect (and that I understand is your purpose in introducing it), that the Commission state rates have upon the interstate rates that were in force on your road at the time the Commission rates were put into effect?

A. That shows the actual effect of the Arkansas state rates upon

our interstate rates from Memphis.

In other words, we could not get, after the Arkansas tariff was made effective, the same through rates as were in effect prior to its effective date, for the reasons explained. That is, that the business would be consigned to Pine Bluff and re-shipped at a lower through rate.

Recross-examination.

By Mr. HILL:

Q. Mr. Watson, I wish you would take this testimony of Mr. Perkins, which he put in yesterday, setting forth the table of rates from Memphis, on page R-21: that table wherein Mr. Perkins has shown that the rate from Memphis Bridge Junction to various points in Arkansas, is a Memphis rate, plus the bridge toll, and in giving those rates he has put the bridge toll at two cents, which fits his theory that those rates were made on the Arkansas Commission rate, plus the bridge toll:

Now, if the bridge toll is five cents that would not fit with

those rates very well, would it?

A. He does not say the bridge toll is two cents. He says the difference is two cents, but it may be possible that the bridge toll is two cents on all classes. My recollection is that it is five cents on less than carloads and two cents on carloads.

Mr. MOORE:

Q. It has been changed since the Commission tariff went into effect?

A. That is my recollection of what it is now. I won't be sure, because it does not figure in our rate adjustment.

Mr. HILL (to Mr. Perkins):

Q. This table, I assume, was intended to represent the situation in 1907, was it not, Mr. Perkins?

Mr. PERKINS:

A. Yes, sir.

Mr. HILL (to the witness, Mr. Watson):

Q. This table shows both carload and less than carload?
 A. Yes, it shows the difference to be two cents on all classes.

Q. Mr. Perkins has explained that as being due to the two cents bridge arbitrary: if the bridge arbitrary is five cents on L. C. L., then his theory would not work on this table?

A. Yes, except on the first four classes.

Q. You say on that class it would not work?

A. On the first four classes.

Q. Have you anything that you can turn to, to find out 3986 whether your recollection or his is correct?

A. Not here, but I can get the information and supply it

later.
Q. I wish you would.

A. I will do so.

M. L. Byers, a witness of lawful age, being duly produced, sworn and examined on behalf of the complainants, in re-3987 buttal, testified as follows:

Direct examination.

By Col. J. M. MOORE:

Q. Please state your residence and occupation. A. I am a resident of St. Louis and my occupation is Chief Engineer, Maintenance of way, of the Missouri Pacific and Iron Mountain System.

Q. How long have you been connected with that system?

A. About six years.

Q. I wish you would state what experience you have had in rail-

road work?

A. I graduated from the Lehigh University as Civil Engineer in '88 and immediately entered the service of the Pennsylvania Lines west of Pittsburg, as Assistant Engineer in the maintenance of way department; I remained in that capacity on various divisions and in the office of Chief Engineer for about five years

I was then promoted to be Engineer maintenance of way and served on various divisions of the Pennsylvania Lines

west of Pittsburg, in that capacity, until 1901. I was transferred to the General Manager's office on special work, principally connected with transportation matters, as General Inves-

3988

Afterwards I resigned from the Pennsylvania service to accept the tigator. position of Assistant Manager of erection of the American Bridge Company, a subsidiary of the United States Steel Corporation. on the Pittsburg district where I had charge of the erection of steel bridges and buildings in Ohio, Indiana, West Virginia and several other states and a portion of Canada.

I resigned from that position to accept the position of engineer of maintenance of way of the Baltimore and Ohio and the Baltimore &

Ohio Southwestern system.

After about a year in that position I was promoted to be assistant to the General Manager, where my duties were principally connected with the reorganization of the accounting and reports in the Mechanical Department.

After about a year in that position I was promoted to be Assistant General Superintendent of Transportation in charge of local and

through freight service.

I left the Baltimore & Ohio to accept a position as Assistant to the Chairman of the—I have forgotten now whether of the Board or the Executive Committee of the Rock Island Company, which at that time controlled the Chicago Rock Island & Pacific, the Frisco,

the C. & E. I., and the E. & T. H. railway systems.

3989 On taking that position I was assigned as Chairman of two committees, first on disbursement accounting and, second, on revenue accounting. The duties of those two committees were to reorganize the accounting and reporting structures of the four companies, to

secure uniformity so that a comparison of results could be more accurately obtained.

After Mr. Loree left the service of the Rock Island as its Chairman, I entered the service of the Missouri Pacific Railway System, and

have been with it since then in my present capacity.

During the time I was connected with the Baltimore & Ohio Railroad I was selected by the President as Chairman of a committee on accounting, for the purpose of attempting to improve on the system

of revenue accounting at that time in use.

The Baltimore & Ohio at that time was controlled by the Pennsylvania Lines, and Pennsylvania officials were in charge of the property; but instead of installing the system of accounting which was in use on the Pennsylvania Lines at that time, and which they considered obsolete, and entirely unsatisfactory for the purposes of the operating officials in studying results of operation and securing more accurate operation and more economical operation, they decided to

endeavor to devise an improved system. That was worked out after examining into the systems in use on various railroads, and was installed on the Baltimore & Ohio System.

Shortly after Mr. Cassatt, then President of the Pennsylvania Railroad appointed a committee consisting of representatives from the allied lines of the Pennsylvania, the Pennsylvania Railroad, the Pennsylvania Lines west of Pittsburg, the Baltimore & Ohio, the Chesapeake & Ohio, and the Norfolk & Western, to take up the question of working out a better system of disbursement accounting, which should be uniform on all of those lines.

I was a member of that committee as one of the representatives of the Baltimore & Ohio System; and after considerable investigation the Pennsylvania Lines through this committee, adopted practically

the system that had been adopted by the Baltimore & Ohio.

Later, when I entered the service of the Rock Island Company one of my duties was to install a revised system of disbursement accounting; and practically the same system as that adopted by the Pennsylvania Line was installed on the Rock Island, being modified slightly because of the difference in the organization of the two companies.

After entering the service of the Missouri Pacific System the difficulties in regard to the system of disbursement accounting in use, brought about a request for me to assist in the installing of a system

of disbursement accounting on those lines.

And practically the same system was installed there.

And practically the same system was installed there.

Later the Interstate Commerce Commission took up the question of revising their system of disbursement accounts, because they had been found to be out of date, and after considerable study of the question, in which the Commission, principally through Professor Adams, consulted very freely with various railroad organizations among others the American Railway Association Committee on Statistical Inquiry, of which I was a member for a number of years, they adopted their present system of disbursement accounting, which is, except in minor particulars, the system which was installed original control of the system of the system which was installed original control or system or system or system or system which was installed original control or system or sys

nally on the Baltimore & Ohio Railway by the committee of which I was Chairman.

Q. Can you state what changes were made in the system of accounting, under the method adopted by the Baltimore & Ohio Committee, and particularly with reference to that branch of accounting

which related to the disbursement of operating expenses?

A. The changes were such as to produce an entirely different distribution of the charges; and the principal object of the new system of accounting was to avoid the placing of two items of expense in one account, which two items were brought about by two entirely different characters of operation; and which, consequently, could not be measured with any reasonable degree of accuracy by a com-

3992 mon unit.

The old systems of accounting in a general way were apparently based on the idea of attempting to get at the cost of a particular As, for example, the cost of passenger service, or class of service. the cost of a class of freight service. But for operating purposes this was entirely unnecessary, and defeated the purposes for which operating statistics are needed, namely, analysis of the operations, with a view to determining where the operations are abnormal, and with a view of promptly correcting the operations so as to secure economy

operations.

Q. The question has arisen in this case, Mr. Byars, as to the qualifications of various officials for the purpose of determining operating expenses and determining which expense should be divided between branches or classes of operation: some testimony has been given that accounting officials were better qualified to judge of the proper distribution of that kind of expense-say expense of maintenance of way and structures, or equipment, than the operating officials. wish you would state in your own way what your views are on the subject as to the relative opportunities and ability of the two classes of officials—that is, the operating officials and the accounting officials, to determine the relative expense or the distribution of expense of the two branches of service?

A. My opinion is that, other things being equal, the experience of the operating officials is of a character which makes it much better for them not only to design such systems of accounting 3993

but to interpret the results that are obtained.

There has been a very great change in the line of thought in railway service in regard to that particular thing in recent years, and to my mind it has been caused very largely by the growth of the

systems themselves.

In former days of railroading the systems were comparatively small and it was possible for the operating odicials to get over the property so frequently and to be so intimately in touch with the details of operation that they did not feel the need, especially, of operating statistics to aid them in securing economical results. But with the growth of railway systems, that condition has changed and today the systems are so large that it is necessary to have something to direct their attention to operations which seem abnormal, and where their immediate personal attention is probably most needed. In other words, having very much more extended duties, it is necessary to devise means for economizing their time in the performance of those duties.

I think, perhaps, I can illustrate what I have in mind by a resort to historical circumstances that are probably very well known to nearly everyone. In ancient times the Battle of Ivry was one of the celebrated battles, and King Henry of Navarre was personally in charge of one of the armies engaged in that battle. According to

accounts he not only was personally in charge but he actually 3994 personaly led the attack that was made by his army on the enemy. That illustrates the old style of railroading, where the units were so small that the man in charge could be actually in charge of practically all operations, and be immediately on the ground to see

them performed.

On the other hand, a few years ago there was the Battle of Mukden and Marshal Oyama at that time had nearly half a million men on the battle field that extended over several hundred miles. The accounts of that battle seem to indicate that he was probably forty miles away from it. He did not in any way attempt to lead the charges of the various portions of his army but he was informed by means of telegraph or telephone service of the progress of affairs from time to time, and directed them through that knowledge. If he had attempted to lead any one army he would not have known what was going on elsewhere and probably would have been defeated. That illustrates the method of operation of the large railroad systems today. It is necessary to use statistics to secure economical operation and the operating officials of today have been gradually trained to the use of such statistics. They have the great advantage of those not familiar with operations, that they have a better knowledge of what the figures actually mean.

Q. Mr. Byars, where does the primary information that is the basis of those figures or compilations that are prepared by the

accounting officers come from?

3995 A. The primary figures must of necessity be furnished by the operating employes. The compilation of those figures is from one point of view a matter of no importance. That is, they can be compiled by the accounting employes or by the operating employes, or they can even be compiled, as has been done for a number of years, by the New York Central Lines, by an electrical machine which was designed for the purpose.

The main feature of importance is as to where they can be compiled in order to place the information most quickly in the hands of the operating officials for their use in securing economy of opera-

tion.

The actual interpretation of those results can only be satisfactorily made by persons who have gained a knowledge of what the figures really mean. It may be that the accounting officers have gained that knowledge through their study of operations, or it may be that the operating officers are the ones who use the figures. But in individual cases, in order to interpret the figures successfully, it is

necessary to have knowledge of operation, and, consequently, of

what the figures signify.

For example, if I received a statement of sales of various kinds of cloth, some of them silk, others cotton, and that statement showed the price at which those kinds of cloth were sold, I would have very little idea from looking at those figures whether they were cor-

rect or not, because I do not know the values of those different kinds of cloth. If those figures, however, were sub-3996

mitted to a merchant who was entirely familiar with the value of fabrics of that character, and if in those figures there was an error whereby one of the fabrics was shown at two or three times the cost it ought to have sold for, the probability is that he would at once notice it, whereas one who was not familiar with the meaning of the figures would have passed the error by without detection.

Q. The primary information, then, that is, the information as to the practical operation, is collected by the operating officials and goes from them to the accounting department: is that correct?

A. The primary information is collected by the operating employes and in some cases it is transmitted to the accounting department for compilation, and in other cases it is transmitted to the operating department for compilation; and in still other cases It is compiled partly by the operating department and finally is completed by the accounting department.

The New York Central System, several years ago, when I investigated it, used to send this primary information very largely to the accounting department, where it was compiled by the use of electrical machines of the same type that were then used in the compilation

of census information.

On the Pennsylvania Lines west of Pittsburg, at the time I was connected with them, the information in regard to the operations was largely compiled by the operating officers. Some of it was compiled by the accounting officers.

On the line with which I am connected today-

Q. You mean the Missouri Pacific? A. Yes, sir, the Missouri Pacific System. The compilation of maintenance of way operations, for example, is made almost entirely by the operating officials, and the interpretation of those figures is also made by the operating officials.

The method of compilation and system of figures was designed

entirely by the operating officials.

Q. You are directly connected with, I believe, and have charge of maintenance of way department of the Iron Mountain and Missouri Pacific System?

A. Yes, sir. Q. The defendants in this case have presented a method of division of expenses of operation between state and interstate business, by dividing expenses between passenger and freight service on a basis assumed by them; and then they undertake to make a division of expense of operation between each of those branches. instance, on freight the expense of conducting freight traffic seems to have been ascertained by them by dividing into certain groups, beginning with maintenance of way and structures, and dividing that between two classes of trains that operate on the road, through trains and local trains. After having ascertained the expense of each class of train then they proceed in the manner adopted 3998 by them to divide that between state and interstate traffic

respectively carried on those two classes of trains.

Now, in their scheme they divide the expense of maintenance of way and structures on the basis of expense of car mileage and engine mileage, allowing two and one-half times as much, I believe, for engines as they do for cars. In arriving at the number of engine and car miles they have added 50% of the engine miles to local trains for station switching.

As I said a moment ago, each engine mile is equivalent to 21/2

car miles.

That is the system of division introduced in this case by the State. Do you think that is a proper method of separating and dividing the expense of operation of maintenance of way and structures as between the varous branches of the service, including local and through trains and through and local traffic carried on those through trains, for the purpose of ultimately dividing those expenses between state and interstate business?

A. It seems to me that method of division could be accurate only by accident. It does not take into consideration, that is, the method of division between local and through trains does not take into con-

sideration a number of the factors which affect the cost of 3999 operation of those two classes of service. And further, it fails to consider that there is at least 75% of the maintenance of way and structure expense that does not vary with the changes in the amount or character of traffic at all. Of the remaining 25% of maintenance of way and structure expense there is a very large proportion that while it varies more or less with changes in the amount and character of the traffic, yet these expenses are not necessarily incurred at the time the traffic is handled, but it may be incurred a great many years after that, so long after as to apparently destroy the value of the data obtained in the method proposed.

For example, the renewal of steel rail is brought about by the wear and tear of passing trains. That steel rail stays in the track five, ten, fifteen, twenty, or thirty years before it is renewed, and the expense incident to the wear and tear on that rail today may not be actually incurred by the railroad company until a great many years after-

wards, when the rail is actually renewed.

A separation between local and through trains of maintenance of way and structures expenses on a car mile basis does not take into consideration the variations in the size of the locomotive. It does not take into consideration the variations in the amount of the lading in the car. Consequently, it would be possible to take a given condition of consideration where contains and the care contains and the care contains a series where contains a series are contained as a series where contains a series are contained as a series where contains a series are contained as a series where contains a series are contained as a series are contained

dition of service, where a certain per cent of car mileage and engine mileage went to local service and a certain per cent to through service and by changing the character of one of the services in items which the formula was in no wise influenced by,

the actual expense incurred by that class of service would be decreased

or increased. For instance, placing a very much heavier locomotive on the through freight service would not in any way change the per cent of car mileage as figured out by this proposed formula; and yet it would change the amount of expense for maintenance of way and structures which would be brought about by this through service, and would change the proportion of the total expense of maintenance of way and structures which would properly be apportioned between the through and local service, as the result; yet, the formula would not bring about any such change.

Q. Would differences in the loading of cars and in the speed of the train have any influence in the distribution of this character of

expense, as between local and through trains?

A. It would have an influence in the 25% approximately of expense which varies to a certain extent with the amount and character of the traffic. But it seems to me it is necessary to keep particularly in mind the fact that by far the greater proportion of the expense for maintenance of way and structures is not affected by these variations, and the small proportion that is affected is much of it affected in such

a remote way that it would be much more accurate to consider the maintenance of way and structures expense in the same way as the general expenses are considered and dis-

tributed.

For instance, one of the items of expense for maintenance of way There is no relation between and structures is the repair of fences. fence repairs and the amount of traffic handled or the character of It has nothing to do with this traffic and that expense, as well as other items, which must total at least 75% of the total. The expenditures are brought about by the necessity for correcting the destruction by the elements, of the property, and they are necessary and the expense must be incurred, simply for the purpose of maintaining the property in condition to be ready to handle the traffic, even were there no traffic handled over the property.

The remaining 25% due to its character and due to the relatively small per cent of it, it seems to me should be handled in the same way-that is the entire distribution of maintenance of way and structure expense, to state and interstate, should be handled the same way as general expenses, rather than through a system of complicated formulas which cannot possibly be accurate in themselves, and which apparently introduce an unnecessary amount of complication in the

obtaining of the desired data.

Q. Mr. Byers, if lighter engines are used in one or other of the branches of service, say in the hauling of local trains, what effect would that have upon the state's method of dividing the expense of maintenance of way as between local and through trains?

It would bring about error in the figures obtained, because 4002 in certain portions of the maintenance of way and structure expense the weight of the engine has an appreciable effect on modifying the total amount of expense. If one class of service were equipped with heavy engines and the other class with light engines, there would be a change in the relative expense brought about by the two classes of service, that would not be reflected in the distribution as carried out by the formulas proposed.

Q. What is the practice on the Iron Mountain road as to the character and weight of engines, say in the two branches of freight ser-

vice, local and through, or are you prepared to state that?

A. I can state that only in a general way, because that is a branch of the service which is not connected in any way with my present

duties, and it would be only by very casual observation.

The ordinary practice of railroads, however, is to use their lighter engines on the local freight service, and the heavier engines on the through freight service, where the mileage obtained by the engine is usually greater, and where the trains are usually much heavier.

Q. There is a reason for that, isn't there, in the fact that you wish to use the engines up to their capacity or potentiality and that heavier loads and longer trains would necessitate the use of

4003 heavier engines on through trains?

A. It is usually considered economical to use the engines

in that way and for that reason among others.

Q. This basis of division of car mileage also disregards the loading The evidence in this case shows that the of the two classes of trains. cars on the through trains carry heavier loads than in the local trains: what effect would that have upon the state's method of divid-

ing on a car mileage basis in the two branches of service?

A. The wear and tear produced in the items under Maintenance of Way and Structures that is brought about by the traffic is of course a matter of gross traffic rather than net traffic. In other words, it is a matter of the total weight on the rails rather than the amount of freight which happens to be in the car, disregarding the weight of And if there is a difference in the amount of freight which is to be put into the car, of course, the total amount of weight of the car is changed and it will apparently make some difference in the division of the expense. But it seems to me it should always be h the maintenance of way expenses borne in mind in connection. there is a very small proportion of that expense which varies in any way whatever with the amount or character of the traffic.

Q. That is the principal objection to it, you think, that it is a character of expense which is not incident to operation, but it grows out

of other causes, and therefore, it cannot be properly divided

4004 on the assumption adopted by the state in this case?

A. That is the primary objection so far as the greater portion of the expense is concerned. And, so far as the smaller portion of the expense is concerned the incurring of the expense by the railroad is so long deferred in the very great proportion of it as to make such figures almost entirely meaningless.

Q. Does not the inequality in the loading of the cars, that is to say, if one car is loaded heavily, say forty tons, and another car has light loading, say five tons, result in a large proportion of what you

call dead weight in the lighter loaded car?

A. Yes, sir.

Q. What effect would that condition have upon the fairness of

dividing the expense of operating these two classes of trains as between the contents or the traffic carried in them? You take two cars now, one heavily loaded and one lightly loaded: you say there is a larger proportion of dead weight in the lightly loaded cars: now if you are going to divide the expense of operating those cars by the contents, would that properly be held to be considered?

A. In regard to that portion of the maintenance of way and structure expense which is affected by the traffic, the fact that a certain portion of the freight carried is accompanied by a greater amount

per ton of dead weight than another proportion, would certainly very much interfere with the accuracy of the formula 4005 proposed, because the wear and tear is produced partly by the

amount of weight which the track has to carry and the formula does not establish any relation between this amount of weight and the

amount of the revenue tonnage.

Q. Assume a through train carries state and interstate cars, that one class of those cars is more heavily loaded as a rule than the other class: now, I understand from the views you have just expressed that it would not be fair in your judgment to divide the expense of operating that train as between the two classes of freight carried on it, state and interstate, on an equal basis—that is to say, dividing it by the number of tons carried on the train, without discriminating as between the tonnage of the lighter loaded and the more heavily loaded cars?

A. I do not think it would be fair.

Q. And the same would be true of the loads on the local trains, wouldn't it?

A. The same condition exactly would apply on the local as on

the through trains, under those circumstances.

The damage to the track would be brought about by the weight on the track, and if it was not considered in the formula, and the formula considered only a portion of the weight on the track, the formula would evidently be in error except under exceptional conditions when it happened to produce correct results.

Q. You are speaking now of the distribution as between

the trains.

A. Yes, sir.

4006

Q. Mr. Byars, your statements have been made with reference to the freight branch of the service up to this time. The state attempts also to divide the expense of maintenance of way and structures in passenger service between the different branches of the car mileage basis: what do you think about that method of division?

A. I think there is about 75% of the maintenance of way and structures expense that are not affected by the car mileage, to start with; and, consequently, a division on a car mileage basis would

seem illogical.

Q. Do the views you have expressed heretofore as to the freight service apply equally to the passenger?

A. On that basis, yes, sir.

Q. Is there anything further you wish to say in regard to passenger service?

A. No, sir, I think not.

4007 Cross-examination of Mr. M. L. Byers.

By Judge HILL:

Q. Mr. Byers, in the question Mr. Moore put to you as to the division of expense made by the State Accountants he has referred to both a division between state and interstate and between local and through trains: I want to call your attention to the fact that in the division of expenses between local and through trains, where the car mile is used as the unit, there is no division between state and interstate, using the car mile as a unit; the division between state and interstate is not made in any way upon the car mile. But it is made in the way explained in those exhibits and the only use of the car mile, so far as maintenance of way is concerned, is the division between local and through trains. I want to state those facts to you in order to see if you so understood it in giving the answers you did to Mr. Moore.

A. That was my understanding.

Q. Your answers seemed to indicate that was your understanding, although the question seemed to be calling for your opinion as to using the car mile as the basis of division between state and interstate—although there is no such use of the car mile in mak-

4008 ing such division.

A. I so understood it.

Q. You have studied the exhibits in this case?

A. Not all of them.

Q. The general principles you have studied and are familiar with?
A. Yes, sir, so far as maintenance of way and structures is con-

cerned.

Q. I understood you to say that the constant expenses for maintenance of way, by which I assume you mean those due to weather and natural decay, and things of that kind, is about 75%?

A. I should say it was at least 75%.

Q. Which is usually estimated higher than 'that, isn't it, Mr. Byers?

A. I cannot say as to that. It would vary with the conditions. I

should say it was at least 75%.

Q. Mr. Parker, who has had considerable experience as an engineer of maintenance of way and is now engineer for the Texas Railroad Commission, estimated it as high as 90%: would you consider that out of the way at all?

A. It might be as high as 90% in some cases.

Q. I am speaking of the general rule and I do not want any exceptional cases.

A. I think that is rather high, as a general rule. I purposely put my figures at what I thought was a conservative figure.

4009 Q. You put it at at least 75%?

A. Yes, sir..

Q. Then I would infer from what you say of that and what you say about Mr. Parker's estimate, it would be a varied quantity, somewhere between 75 and 90 per cent.

A. I should judge that would be a fair way to express it.

Q. As I understand it, your chief objection to using the car mile for dividing maintenance of way expenses between local and through trains, is that this constant factor is there, and that the car mile would not represent that factor: is that correct?

A. That is one objection but not necessarily the chief objection.

Q. Would not that objection be present in any method of dividing expenses?

A. I cannot answer that. I cannot keep in mind all possible

methods for dividing such expenses.

Q. By "methods" I mean approved methods that are used as factors for dividing expenses in railroad accounting, the subject which we are discussing here?

A. I do not know.

Q. I believe you stated in your testimony that these expenses

should be divided as the general expenses are divided?

A. I think the character of the expense is similar to that
4010 of the general expense and whatever method is proper and
fair for the division of general expenses would be proper and
fair for the division of that expense as a result?

Q. What would you say of the train mile basis for the division of general expenses between freight and passenger traffic? Would that

be a fair method?

A. It has been so long since I have had anything to do with expenses other than maintenance of way and structures that I do not consider myself at the present time as being qualified to pass upon it.

Q. Mr. Byers, you stated in your testimony that it should be so divided as general expenses are divided, and you are familiar with the expense of maintenance of way, if you can find a unit for it it seems to me you would be competent to state what unit would be a fair one?

A. For what?

Q. For dividing expenses between local and through trains for

maintenance of wav expenses.

A. I presumed there would be found a fair basis and a proper basis for the division of the general expenses of different classes of service, and I have studied this question of the division of maintenance of way expenses far enough to make up my mind that it is practically on the same basis as general expenses; and on that assumption it did not seem to me to be necessary to go further. I am not at the present time qualified to pass upon the division of general expenses, but whatever is fair for that would seem to me to be

expenses, but whatever is fair for that would seem to be 4011 fair as to the division of the greater portion of maintenance

of way expense, if not all of it.

Q. I will state for your information if you do not already know it, that the railroads in this case in dividing expense of maintenance of way between freight and passenger traffic have divided it upon the train mile basis, which is shown in Statement 5 of Exhibit 3 of the St. Louis Iron Mountain & Southern Railway Company exhibit in this case.

I will ask you if it is not a fact that all of the reasons which you gave in your testimony yesterday against the car mile division of

expense between local and through trains would be equally applicable to the train mile division of maintenance of way expense between freight and passenger?

A. I think not.

Q. It would not be?

A. I think the train mile as a general condition in making a division between freight and passenger of the maintenance of way expense is somewhat less in error than the use of the car mile

statistics would be for the same purpose.

Q. Let us take up those reasons: the first you gave as I recall it, against the use of the car mile between local and through, was the fact that at least 75% of the expense was constant and that would not measure it: is not that same objection true as to the train mile?

A. There is at least 75% of course that are constant and that would be present whether you divided by the train mile or by the car

mile.

4012 Q. Either factor would be equally objectionable for that

reason, would it not?

A. There are so many factors that enter in to that question that I hardly feel qualified to say that the two factors are exactly the same in all particulars as producing error.

Q. The objection you raise to the car mile, however, upon this ground is true of the train mile, on the ground on which the rail-

roads use it, is it not?

A. The objection to using any unit of actual operation which does not consider all features of the problem would apply, I should think.

Q. Does the train mile consider all the features of the problem any more than the car mile does, in regard to this constant expense I am talking of?

A. I cannot say whether it considers all features as well or not.

Q. The next objection, as I understand, that you make to the ear mile division is this: you say "of the remaining 25% of maintenance of way and structures expense there is a very large proportion which while it varies more or less with changes in the amount and character of the traffic, yet these expenses are not necessarily incurred at the time that the traffic is handled but it may be incurred a great many years after that, so many years after as to apparently destroy the value of the data obtained in the method proposed."

4013 Would not that objection be equally true to using the train mile as a basis for dividing expense of traffic?

A. I cannot say whether that would be equally true or not.

Q. It would be true ?

A. There would be that objection to the use of the train mile as a means of division of maintenance of way expense between freight and passenger.

Q. You mean by that, the replacement of rails and ties and dangs

of that kind. That is what you are referring to, isn't it?

A. I mean the division of the cost of replacement. Q. That is what I mean. Cost of replacement.

A. As one of the items the cost of which is incurred long before. Q. Mr. Byers, if you take the statistics of a road for any given

period, say six months, and attempt to divide the expense of operation between any classes of traffic, this objection which you make would be applicable to any basis of division, would it not?

A. To which objection do you refer?

Q. This objection we were last discussing, that the expense of renewal would be incurred long after the actual use which caused the expense?

A. I cannot say it would be true of any basis.

Q. "By any basis" of course I mean any basis in use in 4014 railroad accounting for the division of expenses between any classes of traffic?

A. That question is almost too general to be answered without the

possibility of not knowing some of the bases that are used.

Q. What bases are used in railroad accounting for the division of expenses: what are the factors in common use?

A. For what purpose?

Q. I am asking generally, now.

A. We use different bases for different purposes. Now I am familiar more or less, with the bases that are used for the purpose of studying the cost of operation with a view of securing more accurate operation. I am not familiar with the bases used for the purpose of distributing, as you are endeavoring to do, between one class of service and another.

Q. With what bases are you familiar?

A. The ton mile basis is used for certain purposes for applying to certain figures. The train mile basis is used and in some cases the tonnage is used. In other cases the number of passengers handled, the passenger mileage. And in other cases an adjusted tonnage figure is used.

Q. What do you mean by "an adjusted tonnage" figure?

A. Adjusted for the resistance of the car, for example. But while those figures are used and give fairly useful results in the study of the economy of railroad operation, it does not necessarily follow that it can be used in determining how much expense is produced by one class of service and how much can be pro-

duced by another class of service.

Q. But if you use any basis to divide expenses that were paid out during a given period, that basis, no matter what it was, would be open to this objection you make here, would it not?

A. Any basis I know of would be open to that objection.

Q. Is it not a fact that in economical railroad management estimates are made of these maintenance of way expenses in advance, and that they can be intelligently forecasted and kept practically uniform one year with another and one period with another?

A. Estimates of expense?

Q. Estimates of expense of maintenance of way?

A. The estimates of expense of maintenance of way are made and sometimes they are actually followed and at other times they are not followed at all closely because the conditions have changed.

Q. You are speaking of estimates for work, but I am speaking of

estimated charge to operation for maintenance of way.

A. That is what I am speaking of, estimated charge to maintenance of way and not new work. That varies from time to time.

Q. Does it vary materially on account of the volume of traf-

4016 A. I do not think it does directly on account of the volume of traffic.

Q. That is not really a factor in determining the amount of ex-

pense incurred for maintenance of way, is it?

A. Not directly and yet, indirectly, it has very frequently very considerable to do with it. The volume of traffic of course effects the net earnings of the railroad and the net earnings of the railroad determine very considerably what is possible for the railroad, the same as for an individual, to expend.

Q. That would be largely a question of improvement, would it

not?

A. I should not say so. It applies to improvement as well as operation, but it applies to operation.

Q. That is the financial side of the problem more than the operat-

ing side, is it not?

- A. The financial side of the problem is somewhat connected with the operating side of the problem with a railroad as with an individual.
 - Q. More or less? A. More or less.

Q. That would not affect, however, a division of past expenses?

A. No, sir, not at all. The future earnings would not affect the division of present expenses.

Q. If you were given a problem that for a certain period 4017 the expense for maintenance of way was so much, you would find a basis of division between the different classes of traffic?

A. Which would be fair?

Q. Yes, which would be fair. That is the problem we have here. I ask you if the objections you have urged against the car mile division, based upon the objection that the replacement would take place at some later period, would not be applicable to any division

of those expenses?

A. I do not say whether it would be applicable to any division or not, but it would be applicable to any division I know of. But it would be applicable to one division probably on a different basis than would apply to another division. In other words, there is a relative amount of error. Some divisions might be more in error than others.

Q. There would not be any question of being more error in one division than the other on account of this reason you are suggesting, namely, that the replacement takes place years afterwards?

A. I think not.

Q. I can readily see where there would be a question of how great is the error on other propositions, but I cannot see how it would be on that proposition. You agree to that, do you not?

A. That would seem to be correct.

Q. You state here "The separation between local and through trains on the Missouri Pacific on a car mile basis, does 4018 not take into consideration the variation in the size of the locomotives. It does not take into consideration the variation in the amount of the lading of the car."

That would be equally applicable to a train mile division of those

expenses, would it not between any classes of traffic?

A. Between local and through trains?

Q. No, I say between any classes of traffic, say freight and pas-

senger.

A. I cannot say whether it would be equally applicable or not, but there would be that objection to a greater or less extent with any other basis I know of.

Q. The train mile would be open to this objection, whether open to the same degree or not would depend upon the conditions on the

road, I presume. A. It would depend upon the conditions of the particular prop-

erty. Q. Of the particular road and the condition of traffic on that particular road: that is what I mean.

A. Yes, sir.

Q. Do you consider the variation in the lading of the car a matter of any moment in the division of maintenance of way expenses between each class of traffic?

A. It has some effect but just how much I think it would be impossible to determine. It does not affect the 75% or thereabouts that is not affected by the traffic. But it does have some effect on the 25%. But just what effect it is very diffi-

cult or impossible to exactly determine.

Q. The reason for that, I presume, would be the greater weight of load would cause more wear on the rails and ties and roadbed,

A. The greater weight would not only cause more wear and tear but disturbs the relations of the different portions of the track structure to each other to a greater extent.

Q. There would have to be a material difference in the weight,

however, would it not?

A. Well, the greater the difference in the weight the greater the difference in the result would be. The difference, however, which actually exists on a railroad is sufficient to make a very considerable difference in those elements of cost that vary with the traffic.

Q. Take two cars where there is a difference of say five or six tons in the loading of those two cars, would that have any appreciable difference on account of the five or six tons difference in the loading,

in this maintenance of way expense?

A. Under some conditions it would but under other conditions it would not, depending upon the stability of the track very largely. For instance, on a bridge, that would have practically no difference. On a track which was less stable than a bridge it might cause an appreciable difference in some cases.

4020 Q. On the good tracks that the Iron Mountain Railroad Company maintain in Arkansas—and I believe you maintain good tracks down there, don't you?

A. We try to, so far as the "powers that be" will let us get money

enough to do it with.

Q. You have pretty good track down there, haven't you?

A. Here and there.

Q. On such tracks as you maintain in Arkansas, Mr. Byers, would a difference of four or five tons in the loading of two cars—taking two as an illustration—make any appreciable difference in the maintenance of way expense?

A. There would be a difference, but how much it would be I would

be entirely unable to tell you.

Q. Wouldn't that be very well defined by a word which has been much used in this case, as one of the "negligible" quantities?

A. It might or it might not.

Q. What do you think about it? Might it or might it not?

A. For the two cars?

Q. Yes, taking those two cars. I am taking those two cars sim-

ply as an illustration.

A. I think the effect of two cars would be negligible. But if there was that difference between all of the cars in all classes of service, and you are endeavoring to obtain the amount which should be charged to the two classes of service on account

4021 of expenditures produced by wear and tear, I am not sure

that it would be negligible.

Q. The next point I wish to take up here is, using heavier locomotives on through freight service than they usually operate on local service, you think that would make a difference, do you?

A. The application of a heavy locomotive instead of a light locomotive would in some cases make a material difference in the cost of maintenance on those items which are affected by the traffic.

Q. I understand that. You are confining these objections, as I understood you, to what you assume to be twenty five per cent.

A. Yes, sir, twenty five per cent approximately.

Q. I believe you made the very general answer that you did not know whether it was a fact that they were using lighter engines on the local trains in Arkansas, than on the through trains; but you assume that from your general knowledge of railroading; isn't that a fact?

A. Yes, sir, and from my general knowledge of the Iron Moun-

tain.

Q. Assuming that would be true, that would place a somewhat greater burden on the local train than should be placed upon it—that is, the engine mile basis of division would place a somewhat heavier burden on the local train than it was entitled to.

4022 A. If the local train had a smaller locomotive than the through train, and you are dividing that cost on an engine mile basis, it would then be unfair to the local train, on account of throwing too much expense on the local train, so far as the damage produced by the locomotive is concerned.

Q. I understand. Would that be an appreciable quantity or does

that belong to one of those negligible matters?

A. In some cases it would be a very serious matter, and in other cases it would be negligible. It would depend upon the extent of variation in the size of the locomotive and again on the condition of the road-bed. Again, to illustrate, the effect on a bridge would be comparatively small, because it would be confined principally to wear and tear on the rail. It would be very difficult to figure that for one locomotive. Whereas on the road-bed, such as we have in considerable portions of Arkansas, it would be quite a serious matterthat is, the use of a heavier engine as against the use of a lighter engine

Q. Would that be as appreciable an element as the one we have just been referring to, the difference of four or five tons in the

loading of the cars?

A. I think the effect of the application of the heavier locomotive would probably be more damaging to the track than the difference in the loading.

Q. I am speaking of conditions in Arkansas as you understand them and not a general condition; the character of the locomotive used on the local and through trains in Arkansas, 4023

and the character of the track in Arkansas.

A. I think the effect of the use of a heavy locomotive on our tracks in Arkansas would be more seriously felt as compared with the effect of a light locomotive, than the effect of a lightly loaded car as compared with the heavily loaded car, as I understand the conditions to be in Arkansas.

Q. Then you are speaking in the foregoing answer, when you refer to light locomotives, of such as are used on the local trains in Arkansas as compared with the heavy locomotives used on the

through trains in Arkansas, are you?

A. I am considering the light locomotives we have on the Iron Mountain System as compared with the heavy locomotives, which I know are in use there, without attempting to say that one or the other is used entirely in one or the other of the two classes of service.

Q. But you are using your judgment based on what you know of the locomotives that are used in the two classes of service, are

A. I do not think my statement requires any judgment to be used in that direction. I am simply stating that the heavy locomotives would produce per locomotive mile a much greater amount of disturbance and expense as compared with the light locomotive, than would be produced by the heavily loaded cars as compared

with the lightly loaded cars, as I understand the difference between a heavy locomotive and a light locomotive, or a 4024 heavily loaded car and a lightly loaded car, to be in Arkansas

on our lines. Q. As between through and local trains you are referring to?

A. No, sir, I am not referring to them as between through and local trains, because I do not know accurately what the conditions are as to specific differences in the use of light and heavy locomo-

tives in Arkansas.

Q. You stated "The ordinary practice of railroads, however, is to use their lighter engines on the local freight service, and the heavier engines on the through freight service, where the mileage obtained by the engine is usually greater, and where the trains are usually much heavier."

A. Yes, sir, and I am assuming that is being used on our line

in Arkansas, but I do not know it.

Q. In answering the preceding questions on that subject you have been bearing in mind, or rather, the application has been to this condition of affairs as stated in your testimony on Saturday, hasn't it?

A. I understand your questions have been with reference to the effect of lightly loaded cars as compared with heavily loaded cars; and the effect of a light engine as compared with a heavy engine.

Q. Let me interrupt you there just a moment, please. The only point of difference between us is that you are using the terms lightly loaded car and heavily loaded car, and light engine and heavy engine, in a general sense, and I am trying to find out from you in a concrete sense, taking the cars used on the local train- and the cars used on the through trains, with a difference of four or five tons in loading between the through freight trains and the local freight trains.

A. I think the point of difference as I understand it is that not being entirely familiar with the local as compared with the through service, I am confining my remarks to the difference between the cars regardless of the service, and to the engines regardless of the service, whereas you are asking me to state them with reference to

the service.

Q. That is what we are trying to do, to find out something about the service in this case; and I am trying to test your knowledge of it as developed in your testimony on Saturday, to find out just how

to compare them.

To bring it down to a concrete case, take such engines as are usually used on the local trains, and such engines as are usually used on the through trains, and assuming the variation in loading between the local and through trains of say four to five tons, which would be the more appreciable element of expense for maintenance of way than heavier locomotive on the through train or the heavier loading on the through train?

A. As between the two I do not know. The difficulties in ascertaining effects of the character are so great that while 4026 it is possible to say that differences in the effect exist, and that in some cases they are great and in some cases they are small, yet when you attempt to make a comparison of that sort it seems to me impossible to make it accurately, or even reasonably accurately.

Q. But your general impression is that the heavy locomotive would cause more damage than the heavier loaded car?

A. For one locomotive, or one car? Q. Yes.

A. Of course, we have fewer locomotives than cars-or, rather, whether the greater number of cars will over-balance the effect of each car or not I cannot say.

Q. That is not my question. I am trying to get at the unit to measure by: you would say the unit of the locomotive would do

more damage than the unit of the car?

A. That is not due entirely to the greater weight of the locomotive as compared to the greater weight of the car. It is due to the fact that the locomotive has reciprocating parts which the car does not have, and these reciprocating parts do very much more injury for the same weight than the car. They act very much as a hammer upon the rail. That is not produced to any such extent by the car.

Q. You have gotten away out of my jurisdiction. What do you

mean by "reciprocating parts of the locomotive?"

A. The parts that go backward and forward, instead of

round and round. 4027

Q. Mr. Byers we have been using one car and one locomotive as an example; suppose the heavier loaded car were pulled by the heavier locomotive, and the lighter loaded car were pulled by the lighter locomotive, what would be the difference in the wear and tear on the track?

A. That would depend again on the speed at which they are

pulled, as another factor.

Q. There would be no other difference between those than the question of speed?

A. I am not so sure of that.

Q. There would be no other appreciable difference would there? A. As you state the problem, that is the thing that immediately occurs to me, that speed would be the material factor.

Q. You regard speed as a material factor in the wear and tear on

tracks, do you?

A. If you include the labor of keeping the parts in their relative position to each other, yes.

Q. You mean the parts of the track?
A. Doing the surfacing, that is an appreciable expense which varies to a certain extent with the amount of traffic.

Q. The train which makes the faster speed on the track entails

the heaviest expense on the track, does it?

A. Yes, sir, other things being equal. If the trains had had the same size of locomotive and the same number of 4028 cars-in other words, all other things being equal.

Q. I believe it is agreed between all the witnesses in this case that the local trains run faster between stations: is that your observa-

tion?

A. It seems to me at certain points the local may run faster than the through train, but the average speed of the local while actually running is not necessarily greater than the speed of the through train while actually running.

Q. I believe that most of the witnesses agreed it is.

A. My judgment is that the witnesses referred to maximum speed

rather than average speed.

Q. No they referred to ordinary practice. It takes more time to make its run, but the actual running time from start to finish I believe they have all agreed is faster on the local than on the through.

A. I do not know whether that is true or not. It seems to me you have got to consider that the local train stops at practically every station and it gets a very long distance from that station before it acquires its maximum speed; whereas the through train goes through that station at pretty nearly maximum speed.

Q. I would like you and Mr. McPherson to debate that question.

A. I am simply stating that I do not know which is the greater

of those two factors.

4029 Q. Mr. McPherson has testified to that and most of the experts for the State have agreed with him, and I think Mr. Doddridge also stated it.

I believe these matters I have asked you about are all of the elements you have pointed out. I do not recall any others in your

testimony. A. I think so. I do not recall any others.

Q. Isn't it a fact Mr. Byers that the car mile is the common factor among railroads for dividing maintenance of way expenses?

A. For what purpose? Q. Between railroads.

A. I should say not. I should say the mile of track is the usual basis of comparison of maintenance of way expenses between railroads.

Q. For the use of joint track?

A. When I am studying, for example, the economy of maintenance of our lines as compared with some other railroad I take their

expense

Q. That is not what my question aimed to get at: what I mean is this: among railroads themselves when they come to use each other's track and make a joint use of track, in which the ownership may be joint, the question of division of maintenance expense between themselves is the point to which I am aiming to direct your attention.

A. I do not know whether that is the general practice or 4030 not. That division of expense, so far as track is concerned,

is a matter with which I do not come very much in contact and am really not prepared to say whether it is or is not. My work is in connection with the actual maintenance rather than with the revenue features.

Q. Mr. Byers are you acquainted with the litigation that originated here in St. Louis over the use of some tracks out about Forest Park?

A. No, sir.

Q. St. Louis, Kansas City & Colorado and the City of St. Louis and the Wabash R. R., commonly known as the Wabash track?

A. No, sir, I am not familiar with it.

Q. It is the track from Forsythe Junction at Forest Park to the Union Station in St. Louis; you are familiar with the joint use of that track and what they pay for it?

A. I am familiar with the fact that there was such litigation and

that is about all I know of it.

Q. Don't you know that the car mile or wheelage basis was used for the purpose of determining what one road should pay the other?

Mr. Moore: That is objected to as not material or applicable in this case. What is done by other people is not binding upon us.

Mr. HILL: What I am trying to establish is not a single, individual instance, but a common practice, and think a common practice in regard to this subject is clearly competent. This 4031 is a mere foundation to lead up to the question of common practice.

Mr. Moore: He says he does not know.

Mr. HILL:

Q. You say you are not familiar with that case?

A. No, sir, I am not.

Q. I mentioned that simply to get a foundation for basing my questions and that is all.

A. I do not know about it.

Q. Do you know S. T. Emerson, a Civil Engineer of thirty six years' experience, Chief Engineer for the St. Louis, Kansas City and Colorado road?

A. No, sir. Q. Do you know him by reputation?

A. I do not.

Q. I want to read you a question propounded to him and his answer to it and ask you your opinion from your knowledge of those matters.

Mr. Moore: We object to the reading of the questions and the answer and the introduction of evidence in another case into this

Mr. HILL: This is all expert testimony and not facts.

Mr. Moore: You cannot introduce expert evidence in this case

without producing the expert here.

Mr. HILL: I do not want to prove any particular fact in any 4032 other litigation or anything of that kind, but I just want to try to prove the opinion of experts along the same line as this witness and ask his opinion of those hypothetical questions.

Mr. Moore: I do not think it is competent.

Mr. HILL:

Q. The witness was asked these questions and gave the following answers:

"Q. I want to state to you a hypothetical case; suppose that one railroad has a right under a contract to use the track of another railroad for a fair and equitable compensation, between certain points, can you tell me what would be a proper basis to arrive at such fair and equitable compensation?

A. Well, I should think it ought to be arrived at in proportion to the use.

Q. Explain to the Master how you would arrive at it.

A. On a wheelage basis.

Q. What would the wheelage basis be on?

A. On the interest of the cost of the property first, and the cost of maintenance.

Q. What do you mean by a wheelage basis?

A. I mean on the proportionate number of cars run over the road by the different railroads using it. Take the total of cars used on it and get the percentage."

(And then he takes up an example and illustrates the point with

his example.)

What do you think of the use of that as a method of reaching an accurate proportion for each of the roads using it?

A. I do not think it could bring the correct results acci-

4033 dentally.

Q. You do not think it would be fair?

A. It might be, accidentally.

Q. Do you know James C. Vandyne?

A. No. sir.

Q. He is Superindendent of the Unoin Depot at St. Louis.

A. I may have met him, but I am not sufficiently well acquainted with him to remember the fact if I have.

Q. I will call your attention to this testimony he gave and ask you

what you think about it:

"Q. Suppose there is a contract by which one railroad has agreed to let the cars of another pass over its tracks for a fair and equitable compensation, on what basis or how would the amount of such fair and equitable compensation be arrived at?

A. The wheelage basis is the one ordinarily selected.
Q. What do you mean by wheelage basis, how would you arrive at the amount of that basis, what would you do first?

A. I would take the cost of the road. Q. Between the points to be used?

A. Yes, sir.

Q. What would you do next?

A. Take the maintenance of the way, the superintendence, etc. Q. Suppose you had to arrive at the cost, what would you do next in order to arrive at the cost per annum?

A. I would keep a correct account of the number of cars and en-

gines passing over it.

Q. Railroads usually do that?

A. Yes, sir.
Q. How would you arrive at the gross amount per annum 4034

that ought to be paid?

A. Take the number of cars and engines each road would run over it, and then divide the sum of expenses and interest account by the numbers of cars and engines the roads handle, and then having a separate statement of each road we could allot each its proportion to pay."

And then he takes up the question of interest.

Is your opinion of that the same as your opinion of the testimony

of Mr. Emerson?

A. I think the locomotive proportion there could be accurate only by accident, so far as maintenance of way and structures expenses are concerned.

Q. Did you ever know Mr. A. A. Talmage, General Manager for

the Receivers of the Wabash and Missouri Pacific Railway?

A. No. sir.

Q. You knew him by reputation very well, didn't you? A. I have heard of him.

O. He was a railroad operator of great ability and distinction was he not?

A. I cannot answer as to that.

Q. I want to call your attention to this testimony given by Col. Talmage in that case:

"By the MASTER:

Q. What are the usual arrangements where one road uses a portion of a track of another, as to the basis of compensation?

A. It is generally based on a rental based on valuation of 4035 the property, and for repairs of track and other necessary expenses connected with the operation, it is on the basis of wheelage which represents the percentage that the tenant line bears to the other, represents the percentage that it bears to the total number of cars passed over the line.

Q. If the renting line passed one-tenth of the number of cars that the owning line passed over the track, it would pay one-tenth of

this?

A. It would generally pay one-tenth of the repairs, but the custom in regard to the fixed charges, as we term it, is one-half. other road is allowed to use the track, a foreign road is allowed to use the track of the parent road, by paying one-half of the value of the track, the rental, the interest on one-half of the value of the property.

Now, if that question were asked you Mr. Byers, just as it was asked Col. Talmage, I will ask you what your opinion would be and I will repeat the question put by the Master there:

What are the usual arrangements where one road uses a portion of a track of another, as to the basis of compensation?

A. I would say I do not know.

Q. What would you consider to be a fair division of the maintenance of way expenses between two railroads jointly using the same

track?

A. I do not believe I could give you a basis which I would consider fair, but I presume that a fair basis will be found for the distribution of general expenses and that that same basis should be applied to the division of maintenance of way expense as being fair, because the great bulk of the maintenance of way expenses are, in my opinion, of the same character as the general expenses.

4036 Q. Mr. Talmage was then asked this question:

"Q. These arrangements of which you have spoken, these cases in which one company desiring to use the tracks of another has agreed to pay one-half the interest on the valuation, and then pay the cost of maintenance according to the wheelage-those arrangements are considered fair and equitable, are they?"

to which he answered:

"Yes, sir."

You would not agree to that, would you?

A. I think that so far as maintenance is concerned, such division should produce correct results only by accident.

Q. Do you know James T. How, who was General Agent for the Receivers of the Wabash and Missouri Pacific Railways?

A. I don't think I ever met Mr. How. Q. Did you know him by reputation?

A. No, sir.

Q. I want to call your attention to this testimony given by him: "Q. Have you got any arrangement with the Pittsburg or Penn-

sylvania Company?

A. We have an arrangement with the Pennsylvania Company by which they run over our track for fifty-five miles from Kokomo Junction to Indianapolis. They pay six percent on one-half 4037 of the valuation and they pay for the maintenance in accordance with the wheelage.

Are you familiar with any such agreement the Pennsylvania Company made? I believe you testified you were in its service for

a good many years.

A. I am not familiar with any such arrangement on the Pennsylvania Road, although it might or might not have existed, my work not being along such lines as would necessarily bring me in contact with such classes of information.

Q. I want to call your attention to this testimony given by Mr.

James How:

"Q. All arrangements such as you have mentioned as having been made and having existed between the Wabash and its connecting lines, are they about such as are generally made between railroad companies, under such circumstances, and are they such as are considered fair and equitable?

A. Yes, sir; I think those arrangements are so common that it

is almost a rule to adopt that as a standard."

You are not familiar with this wheelage basis for the di-4038 vision of maintenance of way expenses between railroads in the maintenance of joint tracks, although these witnesses testify to it as a standard.

A. Not enough to know it is a standard or even that it is the general practice. And whether or not it is the standard, or the general practice does not in any way affect whether it is accurate or not.

Q. Are you familiar with the fact your road has leased a track from the Cotton Belt from Paragould North over which it sends only through freight trains?

A. In a very general way, yes.

Q. Do you know what basis of division is agreed upon between the Iron Mountain and the Cotton Belt as to maintenance of way of that track?

A. No, sir.

Q. You do not know that the car mile is used as the basis of

division between those two roads?

A. No sir, my work does not bring me in contact personally with matters of that kind, or make it necessary for me to be very familiar My work is in connection with the economical maintenance of the property and not property division between railroads.

Q. After accounting? A. After accounting.

Q. You testified about the capacity of the operating man to design a system of accounting as against the accounting man, as I understand your testimony. I do not know whether I 4039 exactly caught your idea in this testimony. I wish you would

re-state it for me, will you?

A. The purpose of accounting, as usually considered by the operating officers of a railroad, and one of the most important purposes in general, is to enable economy of operation to be obtained. Economy of operation can be obtained only by preventing waste and the operating officials have the best opportunity to see in what manner this occurs. They desire the records of the cost of operation to be so compiled and so prepared as to call their attention as quickly and as accurately as feasible, to the places where this possible waste is going on. The difficulty with any one who is entirely unfamiliar with operations compiling such a set of figures would be apparent almost on the face of it.

It has been found, in my experience, that the operating officials have been able to make a very great improvement in the system of accounting which has been in effect in the past, in order to make these accounts more useful in securing economy of operation. That is due to their great familiarity with the operations themselves and with what is necessary to be done to call their attention to these

conditions.

Perhaps I can illustrate that: one of the old accounting systems, which I understand was prepared by accounting officials, subdivided the apportionment of maintenance of way expense into two accounts-repairs to road-bed and repairs to track.

4040 Now, in an endeavor to secure economy of maintenance of roadway and track it was found that combining the expenses in this way did not produce information that was of any material value to the operating officials, and that partly because it did not separate the apportionment of expense which does not in any way vary with the traffic from the portion which does vary with the traffic.

The result of the operating officials taking hold of this subdivision of disbursements of maintenance accounts was to make a very decided difference in sub-dividing the expenses and to subdivide them on some-what different lines; the result is that the information obtained as a result of that re-arrangement is very much more useful to the maintenance of way officials in their endeavor to secure economy of maintenance of way than it was before.

That improvement was brought about solely by the ability of the operating officials, through their knowledge of operation to tell in what way the old distribution was not satisfactory and in what way they needed the distribution of these expenses to be made so as to give them the information necessary to call attention to operations which were not normal.

Q. I believe, Mr. Byers, after hearing your explanation of that, there is less difference between you and the State's witnesses on that

point than I had supposed.

4041 Have you read the testimony of Mr. Ludlam, given in this case?

A. I have read some of it, but I am not sure I have read all of

Q. I want to call your attention to this testimony given by Mr.

Ludlam on page 1173 of the record in this case:

"My judgment is that the operating man, as a general proposition, is the last man who is able to figure out his own cost; that is done by the accounting department and by the various cost de-

partments of the different manufacturing concerns.

Naturally, in installing a system of cost, we would confer with the operating man and familiarize ourselves with the operating transactions sufficiently to be able to devise forms and install systems that would take care of all the operating transactions, but we would never depend upon the operating man's opinion of what it would

Do you agree to those propositions?

A. No, sir. Q. Wherein do you disagree with them?

A. I disagree with the statement that the operating man is the man who is least able to figure out his own cost, for one thing. I do not think that is true. It may be true of some operating men and it probably is true to a very considerable extent of the old type of operating men, as I explained in my direct testimony, because he was operating with such small units that he did not need statistics in order to assist him in studying his operations.

Q. Mr. Ludlam develops that very thought a little further, to

which I will call your attention. He testified:

4042 "There is nothing that is more generally recognized, I think, and coming to be recognized more and more every day, than the absolute importance of separating the operating and the accounting departments, particularly in railroads.'

You agree to that, don't you?

A. I think it is necessary to separate the operating and the auditing departments.

Q. I presume he is using those terms synonomously?

A. I think there is a distinction between the accounting and the auditing departments. The duty of an auditing department is the same as the duty of a bank examiner, to go through the bank and examine the operations of that bank.

Q. I see your distinction, but in practical railroad operation the accounting and auditing departments are the same department, are they not?

A. They have that title, but their duties are by no means the

same.

Q. They have both duties.

A. To a certain extent they have both duties.

Q. To go a little further on this point I will read you from Mr.

Ludlam's testimony where he says:

"I can remember back in my day when the General Manager would instruct the Auditor how to charge certain expenses, but the financial interests, insofar as they control railroad accounting and railroad investments, have learned that it is imperative that the accounting officer should act exclusively on his own responsibility and be accountable only to the Board of Directors of the corporation, if you want to know the actual facts as to the result of operating the property.

Any operating man could make a very fine showing for his property if he was allowed to direct how the different items should

be charged."

Do you agree with this statement of Mr. Ludlam? 4043

A. I think it misrepresents the situation. In my opinion it would be more proper to regard the accounting department as a branch of the operating department. The accounting, in my opinion, is simply a portion of the work of the operating department. But it is also, in my opinion, and I think in the opinion of the witness whose testimony you have read, absolutely necessary to have an independent auditing department. That independent auditing department should not in any way be an operating department; but its primary function is that of auditing and not of operating or otherwise managing the accounts. It is simply there for the purpose of seeing that things are done in the way they should So far as it be done, and not for the purpose of doing them. undertakes to do the work then it is destroying its own value as an auditing department, because then there is no department of the railroad to audit the accurate compiling of the accounting, which is just as necessary in one case as in another.

They are frequently combined as a matter of convenience, but when you deal with the principles involved, it is, in my opinion,

wrong.

Q. I want to read from this one authority and see if you 4044 agree with it:

"The objects sought by accounting reports are three-fold:

First, to enable owners of the property to judge as to its value

and as to the efficiency of management.

Second, to enable officers of all grades to secure economical results in that portion of the Company's operations entrusted to their

Third, to prevent dishonesty."

You agree with that?

Mr. Moore: From what are you reading?

4045

Mr. Hill: You know what I am reading from, Mr. Byers?

A. I think you are reading from the very first draft of some data which I dictated for the purpose of clarifying my own thoughts on the subject, and not with the idea that when they were written they would be either right or wrong.

Q. Do you agree to those propositions?A. Read it again, please.

Q. (Counsel reads).

"The objects sought by accounting reports are three-fold:

First, to enable the owners of the property to judge as to its value and as to the efficiency of the management.'

A. That is one object of the accounting.

Q. Counsel reads.) "Second, to enable the officials of all grades to secure economical results in that portion of the Company's operations entrusted to their charge."

A. That is another portion and a very important portion. Q. (Counsel reads.) "Third, to prevent dishonesty." A. That is still another portion.

Q. You agree with all that statement, then, do you not?

A. I think that is in error in one way. Further consideration brings to my mind the distinction between accounting and auditing.

The object of a system of accounts is to cover all of those features and possibly some others. But the object of an accounting department is not necessarily to do that. The object of the auditing department is very largely the last—to prevent dishonesty in accounting and to a certain extent otherwise.

In a general way, I think that is correct.

Q. I want to read you the following paragraph which I believe is much in the line of what Mr. Ludlam says and I do not know

it is out of line with what you say:

"In the day of the small railroad the general official in charge of operation was able to personally see to and regulate most matters of detail and required but few reports to enable him to keep closely in touch with the situation. Today, with from 5,000 to 10,000 miles of road under his control, he is helpless to personally regulate opera-He employs superintendents of divisions and general superintendents of grand divisions, to attend to the details of active operation; and his own time is taken up with the regulation of the general policy and with the study of the results obtained by his subordinate officials.

To guide him therein he must have statements of the amounts of cost of work done-not the individual items (which he could not possibly find the time to consider) but the amounts of cost of great groups of items-and on the skill with which such data is

made depends the value of the deductions therefrom." A. That represents my present ideas on the subject. 4046

Q. Do you think that the operating man whom you have pictured there very accurately has the skill with which to make selection of such data as would enable him to obtain results from his subordinate officials, when he has devoted his whole lifetime to the matter of direct railroad instead of to the matter of accounting?

A. The question is so worded that I am not quite sure as to its meaning. Whom do you mean by the man who has devoted his whole lifetime to such matters? Do you mean the minor officials?

Q. I am using this general official whom you have pictured in this

book of yours.

A. And not his subordinate?

Q. No, sir.

A. Oh, I think he should certainly be able to determine with greater or less degree of accuracy the things he needs. But about all that this information which he will obtain does, is to call his attention to abnormal conditions, instead of his being obliged into every operation of a railroad, which would be impossible for him to do, he is able to confine his attention to investigating personally or through his subordinates the abnormal operations.

Q. You have explained that. There is no difference between us But the question is, who should install the system? Not the benefit it would be to the operating man. We are all agreed

A. You wish me to say who should install it?

4047 Q. Yes, who should install such a cost system for a great

railroad.

A. I think the system should be designed by a committee representing every branch of the railroad service, in order that all phases

of the question might be considered. That means they must be men with expert knowledge of the question, of bookkeeping and must be men with expert knowledge of the theory of accounting, and must be men with expert knowledge

of every branch of operation.

When you work out a system of accounting that is criticised by that sort of intelligence, then you get a system that is about as successfully designed as can be. No one man can do it.

Q. I agree with you. If any one man did it he would have to get his information from all these departments of which you have

spoken?

A. Yes, sir, and he would not live long enough to get that perfect knowledge.

Q. For himself?

A. Yes, sir, and the different men get it through their individual specialties.

Q. If you left it to anyone man you would not leave it to a general

superintendent or a general manager?

A. I think then I would study the individual. In some cases
I would leave it to the operating man. I would consider his general knowledge of operations and his knowledge of

accounting, and as against that I would consider the accountant's knowledge of at least his own work and his knowledge of operations.

But my own experience with systems which have been designed by accountants has been so entirely unsatisfactory, and I found the information I could obtain in that way has been so worthless, that I

cannot help leaning a little bit-and I am probably prejudiced a

little bit, in the other direction.

Q. You say on page 565 of this book "In addition to auditing accounts, the auditing department is usually required to prepare most of the statements required by the Traffic Department, these statements being made up from the information contained on the revenue waybills.

In some cases, also, the work of the Freight Claim Department, which usually is under the direction of the Traffic Department, is

performed by the Auditing Department."

That is another branch of work placed upon the Auditing Department, is it not, which would familiarize them in a measure with that

branch of the subject?

A. Yes, sir, it would familiarize them to an extent to enable them to compile the information. But the compilation in one case has been turned over to an electrical machine, as I have stated, which indicates it is not a very important matter.

Q. That is the work of compilation but not the work of install-

ing or designing a system?

A. Of course, the system was not designed by a machine.

O. Your testimony of Saturday would rather leave the

4049 Q. Your testimony of Saturday would rather leave the impression that the electrical machine had designed the system. Of course, I do not so understand it.

A. That would be almost as absurd as the testimony here, which would indicate that an operating man does not know anything about his operation.

Q. No, it does not indicate that, but it indicates that he should not be left to determine his method of accounting of his operation.

A. I think that would be about as absurd as entrusting a machine

to do it.

Q. Do you know on the Wabash Railroad that the Auditor reports directly to the President, and the General Manager has nothing to do with that?

A. I do not know anything about that. I do not question it.

Q. At page 99 I find this statement:

"Sometime after the Interstate Commerce Commission was established, it, for the purpose of making possible the comparison of the operating expenses of the different railroads, issued instructions that annual reports of earnings and expenditures be made to it by each corporation in certain form, which it laid down. This form was the result of the meeting of a number of the representative railway accounting officers of this country, and their work marked the first great advance in the art of railroad accounting."

Do you subscribe to the statement there?

A. That is a statement as of what period of time?

Q. I don't know. I am regling from page 99 of a work called "Economies of Railros Operation" published in 1908. I

4050 presume you are familiar with the work?

A. I am familiar with it and it refers to a period of some twenty odd years ago. At that time the whole system of accounting was in a state of chaos and also at that time the railroads were very much smaller than they are now; and at that time the operating

officials were as a rule of rather a different character from the rule

of operating officials of the present time.

Now, as to the extent to which the accounting officials were operating officials before they were accounting officials, I am not prepared to say but I think as a rule that they were.

Q. You do not think very highly of the ability of the accounting

officials to devise an accounting system, do you, Mr. Byers?

A. Not unless the accounting officer has very thorough knowledge of operation, acquired how it may be-in other words, the position does not mean anything. It is a question of what the man knows.

Q. Do you know Professor Adams of the Interstate Commerce

Commission?

A. Yes, sir. Q. Do you know whether he has ever had any operating experi-

- A. I don't know whether he has or not, but I do know that in the discussion of our revision of accounting, Professor Adams indicated to my mind that if he were alone to devise a system of accounting for railroads it would not be a very satisfactory system.
- Q. I suppose any accountant would have to do that, lean 4051 upon an operating man in all branches to make any intelligent division?

A. May I continue my statement?

Q. Yes.

A. In fact, Professor Adams has forced the injection of certain data into the system of accounting which the railroads are compelled to follow, which has met with universal criticism by railroad officials.

Q. I do not think there is any doubt about that.

A. And it has been found very unsatisfactory for the purpose of analyzing and securing economical operations.

Q. I will rest the case of the operator against the accountant here. You are the author of the book I have been reading from, Mr. Byers?

A. Yes, sir.

Redirect examination.

By Mr. MOORE:

Q. Mr. Byers, who is the author of "Economics of Railroad Operation" from which counsel has read extracts on your cross examination?

A. I believe I am guilty.

Q. If you have sufficient knowledge of that branch of the business of railroads and the basis upon which contracts for trackage rights owned by one railroad and leased to another to testify upon

the subject, I would be glad if you would state if it is not a 4052 fact that in contractual arrangements of that sort a profit over and above the actual expense may be involved to the leasing line, is usually provided to be paid for by the line which leases it.

If you are not sufficiently familiar to go into the subject I do not

care to have you do so but if you are competent please give us your opinion.

A. My experience with that branch of railroad work is so limited

I hardly feel competent to go into it.

Q. Mr. Byers, I suppose there is such a thing, is there not, as "primary accounts" which reflect, you might say, with reference to expenditures the facts of operation; Am I correct in that statement?

A. The statistics of operation as represented by accounts are usually divided into various divisions of greater or less importance. more important ones are sometimes termed "primary accounts."

Q. The point I want to get at is this: Accounts are intended to

and do reflect facts, do they not?

A. Yes, sir.
Q. And the facts reflected, intended to be shown by the accounts, are the cost of operation in the various branches in the accounts in which they are kept, are they not?

A. Yes. sir.

Q. If it is true that the accounts are intended to repre-4053 sent facts and those facts are the various items of cost of operation, it is essential that the man who prepares the accounts should know what the different elements of cost are, and what the cost involved in the various branches of the service as shown in the accounts, to the extent that the cost is kept separately and shown separately in his accounts; is that not true?

A. I think that is true of the man who designs the accounts.

Q. I am not speaking of the designing but of the practical keeping of the accounts: If the accounts represent facts, the accounting man must know or obtain from someone else the information which would reflect the facts they are intended to represent: that is true, is it not?

A. Yes, sir, that is true.

Q. If an accounting official has no knowledge of operation where does he get the information as to the facts represented in his accounts?

A. He must take the facts as they are presented to him by the operating employés.

4054 WILLIAM H. V. Rosing, a witness of lawful age, being duly produced, sworn and examined on behalf of the complainant, in rebuttal, testified as follows:

Direct examination.

By Mr. MOORE:

Q. State your name, residence and occupation?
A. William H. V. Rosing, Mechanical Engineer Missouri Pacific Railway, at St. Louis,

Q. You live in St. Louis, I suppose?
A. Yes, sir, my headquarters are in St. Louis.
Q. What experience have you had in railroad operation and work?

A. I commenced in 1880, on the Illinois Central as machinist's

helper. I left the shop in 1883 to take the position of draftsman. From 1884 to about 1887 I was chief clerk in the machinery depart-

From 1887 to 1891 I was chief draftsman in the Machinery De-

partment.

From 1891 to 1892 I was Assistant Master Mechanic of the Chicago Division.

From 1892 to 1893 I was Mechanical Engineer of the Grant Lo-

comotive Works at Chicago.

From November 1893 to 1894, Mechanical Engineer of 4055 the Illinois Central, again. From 1894 to 1898, Master Mechanic of the Denver & Rio Grande

Railway at Denver. From 1898 to 1899 I returned as Mechanical Engineer to the

Illinois Central. From 1899 to 1904, Assistant Superintendent of motive power

on the Illinois Central. 1904 to 1910, and at the present time, Mechanical Engineer of

the Missouri Pacific. Q. You have been engaged, then, for thirty years in the character

of work mentioned?

A. Yes, sir. Q. You seem to have been in pretty much all the departments of

that character of work? A. Yes, sir, all branches of the machinery department.

Q. Mr. Rosing, the defendants have filed an exhibit in this case (Exhibit K) in which, among other things, they attempt to divide expense of maintaining freight cars as between local and through trains, and in dividing those expenses between those two classes of trains they have taken into consideration the element of repairs due to stopping and starting trains at way stations and repairs due to terminal handling of through trains and trains in local service.

Following the formula set out by Mr. A. M. Wellington, in a book written by him, bearing the title of "Railroad Location" they have divided expense of maintenance of freight cars on this

4056 hasis:

- Stopping and starting, 21.5% of the total expense on that account.

Terminal handling 13.5%.

Other expenses 65%.

And those elements of cost have been divided on that basis by the State on this exhibit.

Have you examined the exhibit so you are familiar with the method of division to which I have called your attention?

A. Yes, sir. Q. Will you state if the percent of allowance for stopping and starting and other terminal handling adopted by the State is cor-

A. I do not agree with the percentages given in Mr. Wellington's book, a copy of the edition of 1887 of which I have here before me. Q. That is the edition of 1887: when was the book written?

A. There is reference in the preface here to the book having been written ten years before.

Q. That preface refers to a book written ten years before in

1877?

A. Yes, sir.

Q. State in what you disagree and your reason for your difference in view to that adopted by the State?

A. This claim in table 86 on page 203 of A. M. Welling-4057 ton's book in the 1887 edition gives the total cost of items and divides the items into various parts of railway cars and gives the percentage of cost of repairs, and the percentage of cost to

the total cost of each of the items.

There are some of these items that so far as my observations go should be combined. For instance, he shows an item of drawbars as separate from sills and attachments. In figuring our cost or in judging of the cost of these items we combine them in one item because they are parts of an integral portion of the car forming the draft gear equipment of which the drawbar is only a portion.

Q. You are reading now from the edition of 1887?

A. Yes, sir, on page 203 table 86. The table is "Distribution of cost of freight car repairs to its various contributing causes."

The item of brakes shows that 5% of the total cost of repairing

cars is on account of repairs to brakes.

At the time this book was written, say in 1877—or take this edition in 1887—freight cars during that period had brakes only on one truck, and the brake operated by hand. Since then all of the brake rigging has been changed and none of that old brake rigging is applicable to any car today. We are obliged to apply brakes on both trucks, and we are obliged to operate them by air pressure.

So the entire brake arrangement is quite different and the maintenance of it is very much more than is referred to in Mr. Welling-

ton's table.

4058 The item of drawbars and sills and attachments is shown at 15% in the table here (indicating book). Today that

will amount to at least 35%, in my opinion.

The drawbar arrangement is entirely different from the cars referred to, as well as the attachment to the sills; and on account of the heavier equipment it is practically between two and three to one of what was in those days. And the engines increase in still larger proportion. We have more repairs to do on those items than is shown in the table of 1877.

There is a foot note on page 203 under table 86 which states that the "proportionate cost of wheels, axles and brasses, which are the first two items in the table, is perhaps large, and that the brakes and drawbars are small, but it is in accordance with the best obtainable

information."

I think that is a fact and that would be a fact today, on a propor-

tionate basis.

The wheels which he quotes at 30%, I think 18% would be perhaps nearer right.

The axles, brasses and boxes, which he also quotes at 30%, I should say 22% would be nearer correct.

Springs are also high. He quotes springs at 10% and I think

perhaps half of that would be sufficient.

The truck frames and fittings 5%, I think is about correct.

Drawbar sills and attachments instead of 15% I should say should be 35%.

Q. State what you would say would be a fair proportion of 4059 that element of expense to attribute to stopping and starting?

A. I should say that the stopping and starting would amount to between 30 and 32%—well, I should say about 32%.

Q. That is your best judgment?

A. Yes, sir, as near as I can judge the proportion. Q. What percent of the expense should be charged to terminal handling?

A. About 25%.

Q. I wish you would describe somewhat in detail the new appliances and devices which have been introduced since the time Mr. Wellington wrote that book and which you think affect the percent applicable to this cost. State it in some detail. Give some descrip-

tion of what it is and how it operates that way.

A. In general the details of the cars as we build them today are quite different from even fifteen or twenty years ago. Take the cars say in 1880 when I commenced and am familiar with-the largest car I knew of at that time was 40,000 pounds capacity and that was a special coal car for special service at one mine. There may have been some other 40,000 pound cars at that time but I do not recall

Those cars were all of wood construction and the brakes were operated by hand, and ordinary wooden brake beam, and with brakes on only one truck of the car and cars were equipped

with cast iron link and pin coupler.

The greatest change in cars today is their draft appliances,

air brakes and master car builders couplers.

In order to resist the increasing capacity of locomotives and greater loads of present cars these parts underwent numerous changes in design and construction, depending largely upon the different views of the mechanical men handling matters, and finally culminated in the adoption of one kind of coupler which is known as the "Master Car Builders Coupler" or a coupler designed to be uniformly interchangeable for freight cars, and the adoption of air brakes instead of hand brakes, for all freight cars.

The car body, while made larger, is in principle much the same as the old cars. The trucks are somewhat different and somewhat simplified, and of course, are made heavier and of different mater-

ials than they were in 1880.

Q. In what way has all this difference in construction and the use of these devices increased this element of expense for repairs?

A. The application of the air brake has added all our present air brake equipment, including the air brake cylinders, valves, pipes, levers, brake beams, etc. This is all additional equipment to be maintained because we are still obliged to maintain the hand brake connected with this air brake apparatus.

The air brake, of course, is applied whenever the train slows down, while formerly a brakeman who rode in the engine and was known

as the head man, when the train was brought to a stop, would 4061 probably go back and set the brakes of four or five cars, to set the hand brakes, and if this was not sufficient to stop, the engineer would probably do the rest by reversing his engine, regardless of the number of cars in the train. With air, the engineer sets the brakes on all the cars in the train at one time. Therefore, the

use of the air brakes is a complete addition to what we formerly had.

The change to automatic draw-bar, which couples by impact, without employés or operatives going in between the cars to make the coupling, has been the source of a great deal of expense, on account of carelessness, resulting in damage in handling the cars

in stopping and starting and switching.

Q. Speaking now of stopping and starting: That is an element

which you say amounts to thirty-five per cent?

A. Yes, sir, stopping and starting and coupling, in making up and oreaking up trains. The damage is very much greater. I don't know that I can give the exact percentage, but it is very much greater. It became manifest right away; just as soon as the cars were equipped with draw-bars the damage commenced immediately, and was very perceptible.

Q. Do the brakemen have occasion now to go in between the cars

in stopping and starting, to couple them?

A. No, sir.

4062 Q. What effect did that change from the draw bar to the

automatic air brake have?

A. Just the change which came about from the general carelessness of the operatives or employés where they are not in danger. They let the cars come together faster than they did before, all contributing to shocks, the result of which finally is damage to the cars.

Q. You mean in handling the trains the engineers would not exercise that degree of care that was necessary to protect the lives

of brakemen when they did the coupling?

A. It would not be particularly the engineer. The engineer is the man handling the engine, but he handles it on signal from the trainmen or switchmen and he works according to the signals he receives. Naturally if the brakeman was going to couple up cars automatically, he would signal the engineer to move and perhaps not be quite as active in signalling him to stop but let them come together at no matter what speed, because he does not have to go between the cars to make the coupling.

Q. Is that carelessness or only the result of the substitution of a

machine for human help?

A. It is carelessness to some degree, but the heavy equipment also contributes to damage to a certain extent. Two heavy cars coming together at what is known as ordinary switching speed

would ordinarily do more damage than two lighter cars coming together at the same speed.

Q. The impact is greater, I suppose, in the heavier cars? A. Yes, sir.

Q. Is there any difference in the strength of the material of which the cars are made now, that enters into this increased element of cost of stopping and starting?

A. The materials in the cars have been improved in our present We have substituted stronger material than what was used

in the lighter cars.

4063

I don't know as there is anything in the character of the materi-

als that would contribute one way or the other.

Q. You spoke of the weight of the car. Is the weight of the car affected by the increased size or being constructed of heavier material?

A. Both. But particularly in the increased capacity for carrying the load. Where we had a 30,000 pound coal car in 1877 we now have 100,000 pound cars.

Q. Does that increased weight have any effect on the impact?

A. Just in proportion to the increased load, yes.

Q. You have been speaking now with reference to the per cent

of cost of stopping and starting:

I believe you stated that the terminal handling would constitute about twenty-five per cent of this element of maintenance: will you please state in what way that has increased?

A. In the handling of cars, switching and making up

trains.

4064

Q. What you have said in regard to starting and stopping applies with equal force to the handling of them in the yards, does it not?

A. Yes, only that the air brakes would not be applied so frequently in terminal switching as in the local work at stations or

the running of trains, and the starting and stopping.

Q. Your ideas in that respect are about the same as Mr. Wel-

lington's, are they not?

A. I think in a general way the ratio of starting and stopping would be 60 per cent and terminal switching 40 per cent of the sum of those two items; and Mr. Wellington's figures give it within one-half of one per cent of that. That is, so far as the ratio is concerned.

Q. State how much of the expense that should be charged to starting and stopping and how much to terminal handling. That

is the point I am trying to get at.

A. Taking starting and stopping here, it is 21.5 per cent (indi-

cating Mr. Wellington's book).

Q. I am not speaking of that. What I want to know is what percentage you say should be charged on account of this stopping and starting, and what per cent should be charged on account of terminal handling?

A. I think about 32 or 33 per cent for stopping and starting

and about 24 or 25 per cent, say, for terminal handling.

Q. And the changes in the weight and character of the 4065 cars as you describe, the changes in the devices and appliances for handling them and the change in the manner of handling them, that has grown out of the change in these devices and the manner of handling them, is what has brought about this change in cost?

A. Yes, sir.

Q. Have you made a careful investigation of this and are you

satisfied that your estimate is correct?

A. They are what we use in our estimating. We keep in touch with all the performance of work on our car repair work, make trips over the road and see about what work is being regularly performed on our cars, and we think we have the percentages about correct. We repair about three thousand cars every day.

Q. And that is the per cent that obtains on the Iron Mountain

road?

A. I should say so, yes, sir.

Q. Is that the condition that existed three years ago, in the year 1907?

A. Yes, sir, just about. There was a change not long ago of where we were obliged to couple up the air on about fifty per cent of the cars in a train. I think that was recently changed to seventyfive per cent of the cars. However, since the air brake rule first

went into effect by order of the Interstate Commerce Commission, we have been applying air brakes, just as many 4066 as we could, and trying to get them on all cars.

Q. So your percentage that you speak of now is about the same as existed in the year 1907?

A. Just about.

Q. The remaining expense, then, would be forty-three per cent, excluding stopping and starting and terminal handling?

A. Yes, whatever that difference would be.

Q. Starting and stopping you state was thirty-two per cent and terminal expenses would be how much? Did you say twenty-four or twenty-five per cent?

A. Twenty-four per cent.

Q. Then that would leave forty-four per cent chargeable to other causes?

A. Yes, sir.
Q. You spoke a while ago about the manner of handling the trains and you used the word "carelessness"-on account of, perhaps, carelessness in handling or the signalling of the brakemen:

Do you refer to carelessness on the Iron Mountain road or just that general carelessness inseparable from the use of the present kind of appliances on railroads everywhere?

A. Perhaps carelessness does not just explain it. not deliberately go to work and smash cars together. But in view

of the fact that a man does not have to go between the cars to couple them, he would probably be more liable to let the 4067cars come together with a little more force than if he had to go between those cars.

Q. You speak now of the brakemen as giving the signals?
A. Yes, sir. That, together with the heavier car equipment, creates a greater expense.

Q. And the increased expense of keeping up the new appliances

and devices?

A. Yes, sir.
Q. It does with the three elements?

A. Yes, sir.

Q. Is there a considerable outlay necessary to keep up these later devices which you say have been adopted since 1880?

A. Yes, it has increased the cost of repairs to cars right along

on account of the added parts requiring attention.

Q. There being more parts to keep in repair?

A. Yes, additional parts as compared to the parts on the old cars. Q. Mr. Rosing, how does the expenses of repairs on passenger

coaches and on mail and express cars compare?

A. I should say that a mail car would perhaps cost fifteen to twenty per cent more to repair than an express car; and that a coach would cost at least 100 per cent more.

Q. More than the express car?

A. Yes, sir. Q. The state, in Exhibit M filed in this case, has divided the expense of car repairs on passenger train cars between coach, mail and express service, upon a car mileage basis: is that 4068 a fair method of division?

A. No, sir.

Q. Why is not fair?

A. Because it costs twice as much to repair a coach as it does to

repair an express car for the same mileage.

Q. Under the head of "Yard and train expenses" the state has divided between coach, Pullman, mail and express service, on a car mile basis:

Is it proper to divide that character of expense on that basiscar mile basis? I will assume that that item includes cleaning the

A. Terminal expense?

Q. The "yard and train expenses" are divided between coach, Pullman, mail and express cars and that includes cleaning?

A. That would be just as far off as this other.

Q. Do you know about what per cent of that class of expense the cleaning would amount to?

A. The cleaning of a coach with reference to the other cars?

Q. With reference to that element of expense, yard train expense? A. We clean cars at a passenger terminal whenever a train arrives, regardless of where it comes from; whether it came one mile or one hundred miles it makes no difference; we go through a regu-

lar performance and put that train in condition to go out again. We don't go by the condition in which the car came 4069 in, to prepare it to go out, and the same amount of work

is done regardless of how many miles it has traveled. To clean an express car there is nothing to do but sweep it out; but to clean a coach, as we have on all coaches double windows and we have all those to clean——

Q. I will come to that in a moment. For several reasons you do not regard the car mile basis as the best method of dividing yard and train expense on passenger trains?

A. No, sir.

Q. What proportion of the total yard and train expense on passenger trains would the cleaning amount to?

A. The total percentage?

Q. Yes, of the cleaning of all classes of cars. What percent would it come to of the entire yard and train expense?

A. I cannot say what percentage of the yard and train expense.

Q. I want you to take up these different kinds of cars now, and state what the relative cost of cleaning them is: coach, Pullman, mail and express cars?

A. In the express car we only sweep them and what washing up would be necessary to make them presentable in appearance, because the express car consists merely of four walls and the roof and floor and there is no other equipment in it.

4070 In the case of a mail car we have the bag racks and letter boxes, which require some attention but not very much.

It probably cost-ten or twelve per cent more than it would cost to

clean an express car.

In the case of a coach we have the exterior as well as the interior to clean, and in addition the windows, seats, curtains and all the deck appliances, sash, etc., which amounts to probably 150 per cent more expense than to clean an express car.

Q. I wish you would give us the figures as to what you estimate

it costs for cleaning each kind of car. Take a coach first.

A. To clean a coach every time it arrives at a passenger terminal would amount to probably \$1.45 per car.

To clean a mail car would be about 65 cents. To clean an ex-

press car about 55 cents.

I think that is about our average cost.

Q. How does cleaning a baggage car compare with cleaning an express car?

A. A baggage car is about the same as an express car. That is to say, the car may be used for either class of service or for both.

Q. In the same exhibit referred to, the state has charged and divided the expense of repairing passenger locomotives between coach and Pullman, mail and express service, on the car mile basis:

4071 Is that a correct basis of division?

This is done without any attempt at separation as between the two classes of service—that is, the local and through passenger service; but the expense of repairing all locomotives without regard to whether they pull a through or a local passenger train is divided in the way I have mentioned: what do you think about that?

A. I do not think that is correct.

Q. State your views about that, Mr. Rosing.

A. The repairs to a locomotive should be apportioned to the work

done by the engine and unless all those cars were exactly alike then the division cannot be made on a mileage basis with reference to these cars.

Q. What is the weight, relatively, of those classes of cars?

A. Take an express car: it will weigh about 35 tons, while the coach would weigh perhaps 45 tons. A chair car would probably weigh 50 tons. A sleeper will weigh from 60 to 70 tons.

The repairs of an engine depend entirely upon the work done by the engine, and the work done by the engine depends upon the

load it hauls.

Q. Do you include baggage cars?A. Yes, sir, they will weigh 35 tons.

Q. Do you include express cars?
A. Yes, sir. The express car would be the same.

4072 Q. That expense should be apportioned among those classes of cars in relation to their respective weights: is that your view?

A. Yes, sir; and the mileage.

Q. Mr. Parker, a witness on the part of the state in this case, testified that the report of the American Railway Engineers & Maintenance of Way Association of 1904, shows a statement of cost of locomotive repairs on the Union Pacific Railway and that the cost of freight and work engines on account of getting up steam in terminal work was 7.35 per cent.

Cost of switch engine, 12.47 per cent.

This he says refers to locomotives, while Mr. Wellington refers to freight cars.

He says further:

"Mr. Wellington shows 21.5 per cent of this expense is on account of stopping and starting at way stations, while this report shows twenty per cent. Mr. Wellington shows 12.5 per cent for terminal handling and this report 16 per cent."

Are you acquainted with that report? You have seen it, have

you?

A. Yes, sir.

Q. Will you state what that report is and what the real facts in regard to it are?

A. I should say that the report (which was made by the Maintenance of Way Association not Mechanical or Operating Association) evidently applied the Wellington formula for a divis-

as the Wellington formula. In addition, however, they show certain figures relating to passenger equipment, and that table shows that the cost to repair passenger cars on account of stopping and starting is just as much as for freight cars. But I don't see how it can possibly be one-fourth of the cost of repairing freight cars, so I do not see they are any nearer right on their passenger than on their freight cars. It certainly costs a great deal more to repair the draft rigging on the freight cars, relatively, than on the passenger cars.

Q. You say it is evident that the report is based on Mr. Wellington's figures because they are the same:

I wish you would state whether the report states on what it is

based and that they adopt Mr. Wellington's formula.

A. I think there is a note in the report that it was based on Mr. Wellington's formula.

Q. Do they discuss in there the correctness of that formula, or

do they adopt it without discussion?

A. I do not recall any discussion of it. There might have been some. I only used the table to make a comparison with the Wellington formula. It seems to me it was the same thing only they added passenger cars, and in my opinion that is further wrong than on the freight cars.

4074 Cross-examination of W. H. V. Rosing:

By Mr. HILL:

Q. Mr. Rosing, have you your copy of Mr. Wellington's work before you?

A. No, sir, I did not bring my copy but I think I have some

memorandum of the table.

Q. Have you a copy of his table 86? A. Yes, sir, I have a copy of that.

Q. I wish if you have that copy you would read that into the record.

A.-

Item.	Distribution.							
	Total cost of item.	Effect of time and age, inde- pendent of work and mileage.	Stopping and starting.	Terminal making up trains, etc.	Curvature and grades.	Distance only between sta- tions on straight track.		
	p. e.	p. e.	p. c.	p, c .	p. c.	p. c.		
Wheels	30		5	2	13	10		
Axles, brasses and boxes	30		5	2	5	18		
Springs	10		2	1	1	6		
Truckframe and fittings	5	2	1	1		1		
Brakes	5		2	1	2			
Drawbars	10		4	4	2			
Sills and at- tachments	5	1	2	2				
Car body, painting, etc	5	3	0.5	0.5		1		
Total	100	6.0	21.5	13.5	23.0	36.0		

Q. Mr. Rosing, referring to table 86 which has just been read, as I understand your testimony yesterday, you differ with Mr. Wellington as to the percentages in the first column, which is the total cost of each of the various items therein set forth aggregating the total distribution of the cost for freight cars repairs to these various contributing causes?

A. Yes, sir.

Q. But if I understood you correctly you do not disagree with Mr. Wellington as to the proportion which he distributes to starting and stopping, on each item; is that correct?

For instance, you take wheels, which Mr. Wellington gives as 30% and which you say should be 18%: in getting the percentage of expense of starting and stopping for that cause, as I understood, you would agree with Mr. Wellington's proportion except you apply

it to 18% instead of to 30%: is that right?

A. What I understand you to mean is, that Mr. Wellington names certain items to which he distributes the cost. Of course, if you want to distribute it among those items you would have to use those same ones now for comparison. But in the distribution of items I do not think those headings are at all applicable to our present car construction, but for the sake of the division we will accept those headings as they are.

Q. That is not exactly the point I am asking you about. point I am asking you about is this: this first column gives the distribution as Mr. Wellington sees fit and proper to dis-4076

tribute it: now you disagree with him as to the percentages which should go into that column?

A. Yes, sir.

Q. And as stated in your testimony yesterday?

A. Yes, sir.

Q. I understood you to say that the relative proportion assigned to starting and stopping you did not disagree with?

A. He shows 21.13% and I show 32.23%. Those are relative. Q. I am speaking now of the individual items, Mr. Rosing. understand your total. I am coming to that in a few minutes.

Take wheels, now, to illustrate my point.

Mr. Wellington puts that at 30% and you put it at 18%? A. Yes, relatively. I think I understand you now. Q. You understand that?

A. I think so.

Q. As to these various items he has given under "Stopping and starting" you disagree with the result, but agree with the relative proportion as assigned to starting and stopping: is that right?

A. No, sir; that is not right. Take the two percentages he gives for

stopping and starting as 21.5 and 13.5 or a total of 35%-

Q. You are going to the question of totals but-A. (continued). Now, the relation of 21.5 to 35 and of 4077 13.5 to 35 is about as my 32 is to 55 and my 23 is to 55. That is the relation I referred to in my remarks yesterday.

Q. I understand your difference with him as to results. am talking now about the apportionment of your given percentage as to starting and stopping.

Take the first item, wheels. Mr. Wellington gives that as 30%

and you say that is too much and that it should be 18%?

A. Yes.

Q. Mr. Wellington gives 5% of the percent apportioned to wheels as due to starting and stopping?

A. Oh, I see now.

My figures do not agree with him in respect to that. My arrangement is different from his.

Q. He gives 5%, which is 1/6 of that cause: what percent do you

give?

A. I should say 2%, or 1/9.

Q. Take the next item, "Axles, brasses and boxes." Mr. Wellington gives 30%, one-sixth of which he assigns to cause for stopping and starting: what do you assign it?

A. I should say 22% and 1/11 due to stopping or starting, or 2%. Q. In the item of "Springs" Mr. Wellington assigns 10% and I

believe you assign 5%?

A. Four I have it in my table now.

Q. 5% you gave in your testimony yesterday?

A. I may have said 5% but after figuring this out I fig-4078 ured it out as 4%.

Q. You want to correct that and make it 4%, do you?

A. Yes, sir.
Q. What per cent of that 4% do you assign to stopping and starting?

A. 1% or 1/4. And Mr. Wellington shows 2% or 1/5.

Q. The next item is "Truck frames and fittings": Mr. Wellinhton

assigns 5% and I believe you agree with it?

A. I assign 6%. I have changed the equal per cent due to truck frames and springs from 5% for each to 4% for trucks and 6% for springs. I think that would be nearer right.

Q. You change that from your testimony of yesterday from 5%

to 6%, do you? A. Yes, sir.

Q. Did you give me the percentage of that 6% which you assign to starting and stopping?

A. Yes, sir, one-third or two per cent.

Q. The next heading is "Drawbars, sills and attachments":

A. You omitted brakes, if you wish to take them up separately?

A. Thank you, yes, I want to take them up in their order.

Brakes, 5%.

A. Yes, sir, and I have that down as 10%.

Q. You change that now to 10%?

4079

A. Yes, sir.
Q. You did not refer to that yesterday?
A. I think I made the remark "about double." I did not have any detailed figures then.

Q. You put that at 10% now: what per cent do you assign of that to starting and stopping?

A. 6%.

Q. 6% of the 10%?

A. Yes, sir. He had two per cent out of five per cent and I have

6% out of 10%.

Q. The next item is "Drawbars, sills and attachements"; Mr. Wellington makes 10% for drawbars and 5% for sills and attachments: what change do you make on that?

A. I make it 35% on that and 19% assigned to stopping and starting.

Q. Next is "Car body, painting, etc.": what do you make that?

A. Yes, sir.

Q. What does Mr. Wellington make it?

A. 5%.

Q. And you make it the same?

A. Yes, sir.

Q. Mr. Wellington assigns 1% of that as due to starting and stopping: what do you assign to starting and stopping?

A. I did not assign any of that to starting and stopping.

Q. What does that make your total percentage assigned to starting and stopping?

A. 32%.

Q. In making this calculation what data have you used to 4080 compile it?

A. Principally my judgment of the case from experience and from supervising the work of that character for a number of years.

Q. This is just a matter of opinion with you?

A. And also in connection with the work done by what is known as the standardization of Equipment Committee of the Gould Lines, in which is represented nine railroads, which committee meets at certain intervals and discusses the standardization of equipment, for the betterment of our equipment and in a general way the improvement of our rolling stock. We discuss matters as to individual parts of the equipment, and take into consideration the service and the cost and in that way make the changes or otherwise in our specifications for engines or cars with a view of bettering the service and for the betterment of the efficiency of the equipment.

Mr. MOORE:

Q. Are you a member of that committee of which you speak?

A. Yes, sir, I am the chairman of it.

Mr. HILL:

Q. Has that committee ever worked out this table before? A. No, sir.

Q. This is your first effort you have made to locate these expenses? A. Yes, sir.

Q. The first time has been in this litigation? 4081

A. Yes, sir.

Q. And since you read the testimony of witnesses in this case?

A. Yes, sir. Q. How long have you been engaged in this work?

A. You mean on this case?

Q. No, I mean this kind of work, in the mechanical departments of various railroads?

A. About thirty years.

Q. After thirty years' experience your first effort to locate these expenses has been since the introduction of the testimony in this case?

A. That is, the percentage of expense of this character. We have hundreds of items of which there are only four or five here. I do not see, exactly, at the time this table was made how they arrived at these things, except by judgment of some one person, who divided it up and made the comparisons of the percentages.

Q. Aren't you sufficiently familiar with Mr. Wellington's work to know that he states in the body of it somewhere that this work is the result of many years' experience on the Pennsylvania Railroad?

A. That is stated there.

Q. Mr. Wellington is regarded as an accepted authority on the subject, is he not?

A. I think it is a very good book? 4082

Q. And this table was made up from years of experience along these lines on the Pennsylvania Railroad: that is your understanding?

A. Yes, sir. But the table is so very different from our practice in these days that I do not see why it should have been so very different in those days.

Q. Are you acquainted with Mr. J. B. Berry?

A. I know Mr. Berry, the Chief Engineer of the Union Pacific Railroad.

Q. Formerly, but I believe he is now chief engineer of the Rock Island Railroad.

A. Well, I have met Mr. Berry on several occasions. I happened to be engaged with him at one time on some committee work.

Q. Is not Mr. Berry considered a man of large attainments in

the line of his profession?

A. Well, I would not want to criticize a man in his profession, because his is an entirely different branch of engineering from mine. He is a civil engineer and I am a mechanical engineer. do not know anything about his business.

Q. I was not seeking to draw a comparison between yourself and

Mr. Berry.

A. No, but I do not like to speak of the qualifications of a 4083 man in another line of business—that is, of a civil engineer. I understand that Mr. Berry has a very high reputation in

his business. I have always heard him spoken of as such.

Q. Mr. Moore questioned you yesterday about a report, which he called a report but I believe you did not call it a report, of the Maintenance of Way Association when in fact, it was a paper read before the Railroad Engineers and Maintenance of Way Association. Do you know that the report you were referring to was the work of Mr. Berry?

A. No, sir.

Q. You did not read his article containing that table?

A. No, sir, I just read that table that was spoken of in this testi-

mony here.

Q. I will hand you volume 5 of the proceedings of the Railroad

Engineers and Maintenance of Way Association.

A. I did see the table but I only noticed the figures in it and compared them with this testimony.

Q. I will offer you volume five of the report of the Railroad Engineers and Maintenance of Way Association of 1904 and call your attention to this article printed in the appendix, entitled "Reduction of Gradient, and Elimination of Distance, Curvature, and Rise and Fall on Union Pacific Railroad," by J. B. Berry, Chief Engineer of the Union Pacific Railroad, which you will find commencing on page 689. And therein I will call your attention to table three on page 695 which you see is a part of that article, and I will ask you if that is the table you referred to in your testimony vesterday?

A. (After examining book:) Yes, sir.

4084 Q. You examined the table but not the article containing it? Is that so?

A. Yes, sir

Q. Now I see in your testimony yesterday you said, "I should say that the report which was made by the Maintenance of Way Association or the Mechanical or Operating Association evidently applied the Wellington formula for the division of expense, because it was practically the same thing as the Wellington formula."

A. That should not be the Mechanical or Operating Association.

Q. You say you want to make a correction in that statement? A. I wish the word "or" to be changed to the word "not." Making reference to practically the same thing I referred to that part of it relating to freight cars.

Q. Mr. Rosing, I want to read you what Mr. Berry says of the

way in which these tables were compiled.

On page 692 he says: "In order to determine the relative merits of different locations,

values must be ascertained for each detail affecting operating ex-"The Economic Theory of Railway Location", by Mr. A. M. Wellington, treats the entire subject fully. In this work Mr. Wellington has given to engineers a logical method of obtaining the values for distance, curvature, rise and fall and gradients, but the modern classification of operating expenses as adopted by the Interstate Commerce Commission gives these expenses in greater detail than could be obtained during the life of Mr. Wellington. This detail is of material assistance in following out Mr. Wellington's general method, as it lessens the chance for error in judgment as to the proportion of each item of expense which will be affected by changes in the details of location.

Prof. W. L. Webb in his recent work on "Railroad Con-4085 struction", has developed values for the various details, following the general method given by Mr. Wellington, but using the classification and figures given in the Reports of the Interstate Commerce Commission for the entire railway system of the United A study of these reports shows that the average cost per train mile in the more populous states is less than in the states west

of the Missouri River.

In order to obtain a value of these details of location for the use of engineers in the Western states, the general methods of both Mr. Wellington and Prof. Webb are applied in this paper to the operating expenses of the Union Pacific Railroad Company.

Table No. 1 is deduced from statements of operating expenses for the four years ending June 30th, 1902, and shows the percentage that each item of the table bears to the whole. The average cost per train mile is also shown, and this cost is divided between the

items of the table according to the percentages shown.

Before proceeding to consider the value of gradients, distance, etc., it is necessary to obtain some basis for arriving at the proportional percentages of the more important items that are affected by changes in location. In many of the smaller items judgment alone has to be used, and in most of such cases a wide variation in judgment will produce but a slight change in the final figures. In the larger items of Maintenance of Way, Maintenance of Equipment and Conducting Transportation, the reports of the various departments for the four years covered by Table No. 1 have been studied and the conditions as they exist on the Union Pacific have been considered. The reasons for adopting these percentages are given in detail in Wellingtons' "Economic Theory of Railway Lo-Tables Nos. 2, 3, and 4, together with the following notes, give some additional reasons and also explain those points wherein percentages different from Wellington's have been used."

Now after hearing that statement Mr. Berry made as to how he arrived at the percentages given in his Table No. 3, you find you are mistaken in assuming that he merely adopted the Wellington

percentages, do you not?

A. Well, I don't know. I simply took it for what it 4086 reads.

He speaks specifically there of applying Wellington's methods. I did not know what Wellington's method was for making his table.

The manner of arriving at the expense of maintenance of an article, surely the percentages of the various parts would be changed at the time the entire article is changed in all its details.

Q. But Mr. Berry says he has made up his table No. 3 from the result of four years operation on the Union Pacific Railroad.

A. That may be. I do not know what the details of his operation were; and I do not know whether they are these individual items. (Indicating table). He says "in individual cases they are matters of judgment."

Q. He said when they are slight, but in large items like equip-

ment, he has taken four years experience?

A. In speaking of maintenance of equipment he speaks of it as a whole. How they divide maintenance of equipment I do not know. So far as taking it from Wellington's, it looks to me they are nearly alike, he has 20% and Wellington has 21.5%, for starting and stopping.

Q. I wish to call attention to the fact that he says he has used Professor Webb's method of classification which is adopted by the Interstate Commerce Commission items for maintenance of work and

other equipment.

A. I do not know whether these items are according to 4087 the Interstate Commerce Commission classification, and I am

not familiar with Mr. Webb's work.

Q. At any rate, you see Mr. Berry's table No. 3 is made up from four years statistics on the Union Pacific as to these particular items, do vou not?

A. Yes, sir.

Mr. HILL: I wish to introduce this table No. 3 in full here. The paper referred to is in the words and figures following to-wit:

		Distribution of contributing causes, in percent.			
Class of service.	Total cost, percent.	Time and exposure.	Stopping and starting.	Switching.	
Passenger	100	11 6	$\begin{array}{c} 20 \\ 20 \end{array}$	11 16	
Passenger		Curvature.	Grades. 20 20	Distance.	

Mr. HILL: 4088

Q. Mr. Rosing, this shows that this report was made in 1904, and applying four years work there he gives the years shortly before that time, during that period, and working out practically the same result that Mr. Wellington made some ten or fifteen years earlier-wouldn't it indicate that the Wellington proportions were practically right as applied to modern railroad management?

A. No, sir, I don't think so. I think the percentages given here

are just as authentic, so to speak, as the ones in that report.

Q. You are basing that upon the judgment of yourself and your associates, and these authors have based theirs upon many

years' experiments and tests.

A. Our observations are of course from experiments and from actual work done. We repair cars daily all the year around, and a great many a day on the system-in the neighborhood of 3,000 And in associating with the men who do this work, and from my personal observation, and in connection with the designing and construction of new equipment, in which we always take into consideration the service of the old equipment, is what I base my figures on.

4089

Q. That is your opinion based upon your experience? A. Yes, sir. Q. And you do not agree with these two gentlemen who have made these experiments and tests over many years' work?

A. Well, mine has been over many years of work. Q. Another case of "Doctors disagreeing."

A. Perhaps so.

Q. You explained at some length yesterday that the improvements in automatic air brakes, and trucks, and various things of that kind, had in your judgment, increased the expense of starting and stopping trains, for the reasons which you gave: isn't it also a fact that the resisting power to stand the trains have likewise improved?

A. Yes, sir.

Q. If the resisting power had not been improved, and in a measure kept pace with the other, your line would be strewn with wrecks

from one end to the other, would it not?

A. I do not think so. Of course, that resisting power refers only to new cars of modern construction. There are a great many old cars in service and probably will be for a great many years, which we are obliged to operate in connection with the newer and heavier equipment. Of course, their structural parts are not as well prepared for resisting the handling as that of the newer equipment.

Q. Yesterday Mr. Moore asked you if you thought the division of car repairs on passenger trains between coach, mail and express on a car mileage basis was fair and you said you thought it was

not: that is correct, is it not?

A. Yes. I do not remember saving "The division of car repairs." I thought it was a division of locomotive expense on car mileage.

4090 Q. The testimony reads:

"The state, in Exhibit M filed in this case, has divided the expense of car repairs on passenger train cars between coach, mail and express service, upon a car mileage basis: is that a fair method of division? and you say:

"No. sir."

A. No, sir.

Q. You maintain that position, do you, that it is not a fair division?

A. Yes, sir.

Q. Now is it a fair division to apportion the expense of these items between states on a car mileage basis?

A. No, sir, it should be apportioned in accordance with the work

done on the different classes of cars?

One kind of car may need two or three times the work because it has two or three times the parts on it which to work with. While the other cars do not have those parts at all.

Q. You are speaking of locomotives, now?

A. No. sir, of cars. The difference between an express car and a Pullman car and between a Pullman and a coach.

Q. You do not repair Pullman cars, do you?

A. No, sir, but I am showing the difference between the construction of the different kinds of cars. Take a chair car or a dining car and cars of that character. They are entirely different kinds of cars.

4091 Q. On the Missouri Pacific System are not all the cars put into a pool and their repairs divided on a car mileage basis?

A. I do not know how they handle those accounts. Q. Would not that be a fair way of dividing it?

A. The percentage of total expense divided among the different classes of cars on their mileage basis? Q. Yes.

A. I do not think that would be fair.

Q. You do not think that would be fair? A. No, sir, I do not.

Q. Bring that down to this point: Arkansas, of course, obtains a part of the mileage of the St. Louis, Iron Mountain & Southern and the Missouri Pacific Systems: would it be fair to divide the expense of maintenance of equipment, of cars that were apportioned to Arkansas, on a car mileage basis, arrived at by taking the whole pool of the Missouri Pacific System, taking all of them together?

A. I do not see how you can divide the total expense on a car mileage basis, when the work on the different classes of cars varies. That is, cars moving varying distances, costing various amounts to

do that work.

Q. I wish to read you statement 5 of Exhibit 3 filed in this case, which explains one method of apportioning the expenses: it reads as

follows:

"Maintenance of equipment. This account includes all kinds of repairs, renewals, depreciation of cars and loco-4092 motives; also shop machinery and tools. The cost of repairs, renewals and depreciation of equipment being of a general nature and not applicable to any particular state is divided among all states upon the basis of the mileage in each state of each class of service."

I will ask you if that is a fair division of that item of expense? A. It does not seem to me it should be divided on a mileage basis. It may be relatively the correct or the most convenient way for ob-

taining figures, or something of that sort.

Q. The same thing would be true, if it is true-

A. (continued). I do not see how you can take the different cars making the same mileage, and apportion the total expense of those cars equally on a mileage basis, when the different cars require different amounts to repair them, in making the same mileage.

Q. Your objection to this point would go, if I understand you, as well to a division between states as it would to a division between

the classes of service?

A. There is only the passenger service. There is no difference in the classes of service; it is all passenger service. You said "different classes of service."

Q. I did not state my question properly. I meant the different

cars-I mean coaches, mail and express cars.

A. You mean "classes of equipment"?

Q. Yes, that is the word I should have used-equipment. As I understand you, your objection would go equally to 4093 dividing it between states on this basis as to dividing it between different classes of equipment: you do not think that is a proper factor in either instance, do you?

A. No, sir, I do not.

Q. Speaking of units for dividing expenses of the cost of maintenance of track, it is usually reduced to the cost per mile, is it not?

A. I am not at all familiar with the track part of it.

Q. Is not the cost of the locomotives measured by the cost per mile run of the locomotives?

A. That is frequently done that way as a matter of comparison.

Q. But you do not regard it as a good method?

A. That is one that has been generally adopted, but it is not correct. It does not give the engine any credit for the work it does.

Q. You know Mr. M. L. Byers, do you not?

A. Yes, sir.

Q. What position does he occupy on your railroad?

A. Chief Engineer Maintenance of Way.

Q. You regard him as a typical man in his work?

A. Yes, sir.

Q. Are you familiar with a book he has written called "Economics of Railroad Operation"?

4094 A. No, sir.

Q. You know he is the author of that work?

A. Yes, sir, I know he is the author of that work.

Q. I wish to read you from page 97 of that work and see if it agrees

with your ideas on that subject:

"The common measure of track is the foot or mile, and, in comparing the cost on different territories, the cost of maintenance of track is usually reduced to the cost per mile. The cost of maintenance of locomotives however, is measured, not by the cost per mile of locomotive, but by the cost per mile run, so that, if we should combine the cost of locomotive repairs with the cost of track repairs, we would be unable to apply any unit of measure which would be reasonable for the entire expense."

Do you agree with his statement in there as to the proper unit for

dividing those two items?

A. I never thought of that (examining book). What he means there is that you have not a locomotive a mile long to compare with a track a mile long. I do not see that one has any relation to the other.

Q. He points that out. He is right, isn't he?

A. I do not see that that has anything to do with it. That is merely a statement of facts that there are two individual things to

be compared.

Q. The point I am calling your attention to is that in developing that point Mr. Byers states that the locomotive mile is the proper measure of expense of equipment of the locomotive, and I ask you if you agree to that proposition?

A. There are no repairs to a locomotive standing still. The engine must move to cause repairs, and in moving it makes mileage. That is one basis. But that is only one part of the duty of the locomotive and it is a convenient measure for di-

viding up expenses.

I do not know the origin of that but I know it has been going on

many years, while I have been railroading.

But there are many improved methods of measuring the operation of the locomotive and the work done, than by the ton mile basis.

Q. You think that is more efficient?

A. That is the only way. You can only gauge the work a man

does in a given time. And you can only measure the work the locomotive does in a given time.

Q. How would you measure it?

A. On the ton mile basis.

Q. You approve that?

A. Yes, sir. That entails a great deal of work and it is doubtful if that refinement of measuring the operation of the locomotive is of sufficient value to pay for the expense of maintaining it.

Q. This would be gross?

A. Either gross or net. The two go together. You cannot have one without the other.

Q. You think the ton mile is an efficient measure of expense? A. Yes, sir.

Q. A great many of these doctors learned in railroading have been trying to educate me to believe that was not the case:

they have not educated you to believe it, have they? 4096

A. Maybe I am a poor doctor. I know I advocated it a great many years ago, when I was first engaged in engineering statistics.

Q. Has your experience strengthened your views on the sub-

iect?

A. It has not changed them any.

Q. I believe you stated that in your judgment the car mile is not a proper factor for dividing the expenses between mail, express and passenger coaches? I believe you said that was not proper: is that correct?

A. Yes, sir.

Q. Do you know S. C. Johnson, the General Auditor of the Cotton Belt?

A. No, sir.

Q. Do you know him by reputation?

A. I do not know that I have ever met him.

Q. I understand he is a very expert accountant and that he has been Auditor of the Cotton Belt Railroad a great many years. I have not the pleasure of his personal acquaintance but I understand he is very expert?

A. I grant that.

Q. I wish to read you a statement he submitted to a committee of Congress which is published in a volume entitled "Railway mail pay, testimony taken by the Commission to investigate the postal service," part two, at page 563.

He says: "I submit herewith a few facts relating to the railway mail service on this line, which will show why the compensation for

such service should not be reduced."

Then he gives a table of receipts from the various mail 4097 routes on the Cotton Belt road, which I will omit.

Then he gives the expenses for the year, which I will also omit.

Then he says:

"The proportion of operating expenses and fixed charges chargeable to mail traffic given above are arrived at on a car mileage basis as follows".

Then he takes up the actual figures, which I will omit reading unless you wish to hear them, to show how he gets his percentage.

and in giving those figures he says:

"The basis used in arriving at the expenses chargeable to mail traffic seems to be an equitable one, and if any criticism could be offered against it it would be that the proportion allotted to mail traffic is too small, because the mail cars are more expensive than the ordinary passenger cars, and the apartments of the mail and express cars allotted to mail service are fitted up with racks, cases, etc., while the express apartments are simply left bare."

What do you think of that statement of Mr. Johnson?

A. That depends. On the ordinary passenger cars, if he repairs the coaches I should say that the coach costs more than the mail car. A chair car will cost more than a mail car: and an express car will cost less than a mail car.

Q. He just gives that as one of his reasons. What he says is "the car mileage is an equitable basis to apportion the operating ex-

penses between coaches, mail and express cars".

I am asking you if you agree with Mr. Johnson's views as to that?

4098 A. It simply reverts back to the question of the mileage basis. It seems to me a more equitable way would be-

Mr. Moore: Before that question is answered I want the witness to understand and I want to understand just exactly what Mr. Johnson is testifying or talking about.

Mr. HILL: I will read the statement from the book.

Counsel here reads.

Q. The whole question is divided on a car mileage basis and I ask you if you agree with Mr. Johnson's statement that that is an equitable way of dividing the expense?

A. Between the different classes of cars?

Q. Yes. A. No, sir, I do not think so. I will make an illustration of what I am trying to tell you. What I am trying to get at is this: suppose you have an express car in a train and a coach in a train and they At the end of the mile the work required on the go one mile. express car costs \$1.00 and that on the coach costs \$5.00. Then the two cars together to go two miles would cost \$6.00 and I do not think it would be fair to say that because they went one mile each of the cars should be charged up with \$3.00 a piece.

Q. Do you know Mr. Stewart R. Knott?

A. No. sir.

Q. Formerly Vice-President of the Louisville & Nashville Railroad and recently president of the Kansas City Southern Railroad?

A. No, sir. 4099

Q. You know him by reputation, do you not?

A. I know he is a railroad officer and that is all.

Q. I want to call your attention to a statement from him made

in this same hearing, which is found on page 604 of the same

volume I have just quoted from. It is as follows:

"The operating expenses, as divided between "passenger" and "mails" are arrived at by taking the total operating expenses chargeable against "passenger train earnings" and dividing same on the basis of car mileage. The "passenger expenses" were charged with the total mileage of all coaches, parlor and sleeping cars, together with the total mileage of all baggage cars and one third of the mileage of "combination" baggage, mail and express cars". The "expenses of conducting mail" were arrived at in like manner by charging to that account the total mileage of the railway post-office cars and one-third of the mileage of the "combination" baggage, postal and express cars. This is clearly not an unfair basis of division, so far as the transportation of mail is concerned, when we bear in mind that the postal cars are more expensive both to construct and maintain and to operate than the ordinary baggage or express cars; and same is true with regard to the postal apartment in the combination baggage, mail, and express cars-i. e., such apartments are provided with special facilities for the handling of mails not provided or required in the express or baggage apartments."

A. I say that is just right. Q. You agree with that?

A. Yes, sir. That speaks of a coach and mail car as compared

with an express car.

Furthermore, all those mail car statistics you have read on a mileage basis I say would be nearly correct so far as it relates to a coach, because a mail car will weigh nearly as much as a coach.

Q. He speaks of it as a comparison,-4100

A. His last remark you read referred to comparison of a mail car and an express car.

Q. He thinks it is fair.

A. What you read now is correct, but that is different from the

other question.

Q. Mr. Knott answered a question from Senator Allison, during this same hearing, and which appears at page 599 of this same book. It reads as follows:

"Senator Allison: Do you regard that as a fair basis of approxi-

mate cost and approximate earnings?

Mr. KNOTT: I do not, sir. I think a committee of expert would find that that is a partial statement in favor of the Government's side of the question, because we have assumed that the transportation of the mail is handled only with the same expense and under the same conditions as the transportation of our freight and passengers, and that is not the case."

Do you agree with that, that the transportation of the mail is more expensive than the transportation of freight and passenger?

A. I don't know about that.

Q. You spoke of cleaning cars, as if that were a maintenance of

equipment expense: that expense does not belong to the maintenance of equipment in the classification of accounts, does it?

A. I am not familiar with the details of distribution.

Q. You are not familiar with the method of classifying the various accounts?

A. No, sir, I do not follow that.

Mr. MOORE:

Q. That class of expense, yard and train expense, is an expense incurred by the mechancial department?

A. What expense?
Q. Expense of cleaning cars.

A. We handle the work of cleaning the cars almost exclusively.

Mr. HILL:

Q. Mr. Rosing, I see that this item 63 on exhibit 3 "passenger cars, cleaning of", which I understand is a cleaning proposition, shows that \$50,600.32 is charged to Arkansas on that account out of a total expense charged to Arkansas of \$4,931,224.75.

If there are any errors in distributing that cost on a car mileage basis, the total cost is fifty thousand out of nearly five million: whatever error that would be, would be a negligible quantity on

the total results, wouldn't it?

A. I don't know. It would be whatever the figures will show. I would not be the one to determine whether it is negligible or not.

Redirect examination.

By Mr. MOORE:

Q. Mr. Rosing, the yard and train expenses are set out in Exhibit M, to which reference has been made in your examination, amount-

ing to \$549,069.

The expense of the car- of passenger cars is \$50,600 or about 10% of the total of yard and train expense; that is, on ten percent of the items divided on that basis we have been making that division.

4102 A. Yes, sir.

Q. I want to know if that 10% out of an item that amounts to over half a million dollars would not make some difference in the result?

A. Yes, sir.

Q. Counsel called your attention to the fact that there were some four million dollars of total expenses involved in operation during the period mentioned. That includes freight and passenger. The passenger end of that amounts to \$1,678,000. Nearly one-third of that, that is something over half a million dollars, is involved in the yard and train expense, and 10% of that is involved in this cleaning.

That expresses, if my figures are correct, and they are taken from the exhibits in this case, the important or lack of importance

of this item of car cleaning?

A. I should say so.

Q. Your attention was called to your statement that the expense of car repairs on passenger train cars should not properly be divided on a car mileage basis: you were asked why that was not true and you said because it costs twice as much to repair a coach in one class of cars than in another class of cars: it was because of the want of quality in the labor and expense between the different classes of cars engaged in that service, was it not, that caused you to say it could not be divided on a car mileage basis?

A. Yes, sir, the different classes of cars making the same mile-

age.

4103 Q. If you were going to divide this between the same classes of cars, a different rule would prevail, would it not?

A. Yes, sir.

Q. The Missouri Pacific System, of which the St. Louis Iron Mountain & Southern is a part, operates in more than one state, operated in Missouri and Arkansas?

A. Yes, sir. Q. The Iron Mountain is a part of the Missouri Pacific System, which embraces more than one state, in dividing the expense of the several branches of service, including maintenance of equipment, and ascertaining that which belongs to any one of the states in which the system is operated, it is necessary to make an apportionment or division between the states in which the property is operated? Is there any other basis than the mileage upon which a division between states of the expense of the various kinds of service can be made, than an apportionment with reference to the mileage in each territory: is there any other way to make it?

A. I think the mileage would be the only basis on which you could divide that, because there would be just as much variation in the different kinds of trains in one state as in another, on an average, during a month or a year or whatever period you wanted to arrive

Q. When you come to divide this car expense we will say we are treating of now, keeping the passenger cars in repair, for the purpose of ascertaining correctly or as closely as is possible

to obtain it correctly, you have already said you could not take the total mileage of all the different classes of cars, mail, baggage, express, coaches, and divide it by the car miles. In that case what would be the proper method of making a division of the cost between these different class- of cars?

A. That would be very difficult to do, I should judge. I would have to take the actual cost for each different car, and the mileage

that each separate car made during a given time.

Q. In other words, you would have to ascertain the expense of each class of car used and divide that between the members of that class, on a mileage basis?

A. Yes, sir.

Q. That would attain as near perfection as is possible?

A. You would have to get the expense of each individual car and the mileage of that car.

Q. What I mean is this: If you wanted to divide it on a mileage

basis you would approach approximate correctness by confining your division to the various classes of cars?

A. Yes, sir.

Q. That is to say, coaches, mail and express cars and so on? A. Yes, sir.

Q. But when you come to group them and take the total cost of all classes of cars, and then divide it on the mileage basis. you are just as far wrong as the difference that exists in the 4105 cost of repairing each class of cars, are you not?

A. Yes, sir.

Q. If it costs twice as much to repair one class of car as another you would be just as far off from being correct in dividing on that basis?

A. Yes, sir. Q. That is what you meant by your statement that the car mileage was not the proper basis for division, is it?

A. Yes, sir.

Q. Your attention was called to the work of Mr. Byers, who testified in this case yesterday, on economics of railroad operation and particularly to page 97 of that book where in discussing the subdivision of expenses he states some principles to which your attention was called:

Mr. Byers says:

"It is important that two points be kept in mind:

First, that the subject of expenses have a common unit of measure.

Second, that the expenditure be brought about by similar causes." And the reason you have just given that the basis of apportionment adopted by the state in this case, as to the expenditures we have been talking about is wrong, is because of those two principles, is it not?

4106 In other words, is there a common unit of measure as between actual expense of keeping coaches and express cars in repair, or is there a different unit or measure of cost applicable to each one?

A. You might apply the same unit of cost, but the cost per unit

would vary greatly.

Q. He says "the expenditures must be brought about by similar

causes."

Isn't it also essential that there should be a measure of quality in that expenditure as between the two classes which you propose to divide in common, in order to make that division proper?

A. I should say yes.

Q. What do you understand in its application to this division of the cost of repairs to passenger cars to be the unit of measure? Or what is your understand- is the unit of measure?

A. You must have a unit of measure.

Q. You mean that is your view? A. That is my view.

Q. Does that unit of measure exist as between the different classes of vehicles? Is it a common unit by which you can measure the expense incident to a coach and the expense incident to an express car?

A. I say, you must have a unit of measure for the car. Now, the cost per mile to run them is on a mileage basis. But you cannot take the sum of those two and divide by the mileage and 4107 get the relative cost. That cannot be done. It may be done

for convenience, but it is not a fact in the case.

Q. There is a difference between getting a unit of cost to compare with as between two territories and two periods of time, and getting that cost actually in dollars and cents for the purpose of dividing between the two branches of the service.

A. I do not understand that.

Q. I will read you what Mr. Byers says:

"The common measure of work is the foot or mile and in comparing the cost on different territories"

that is what I am calling your attention to, different states-

"in comparing the cost on different territories the cost of maintenance of track is usually reduced to the cost per mile."

Why is that done and why is it done that way?

A. Because that is the actual amount of money spent on that mile of track.

Q. Why do you do that? I understand when you apply that to one mile, but when you apply it for the purpose of comparison to ten miles for the purpose of ascertaining relatively the cost, say in Arkansas and Missouri, why do you adopt that measure then?

A. I would not say to take the total cost and divide it by mileage in two states would be the relative cost, because there might be twice as much mileage in one as in the other. Take the mileage of

a baggage car here and in another place. The mileage of track in one state and in another state would be just the same on the two cars in the same state, but it would not be the same in comparing a baggage car and a coach. That would be a different thing. But a mile of track and a mile of track is the same thing.

Q. But your attention was called to a statement made by Mr. S. C. Johnson in a hearing by the Mail Department at Washington in connection with the Postal Cars on his road, in which he is quoted as saying that mail cars are more expensive than ordinary passenger cars to keep in repair.

Do you think he is correct in that statement?

A. I don't know what he means by "ordinary passenger cars." That is very indefinite, indeed.

Q. His language is:

"The mail cars are more expensive than the ordinary passenger cars, and the apartments of the mail and express cars allotted to mail service are fitted up with racks, cases, etc., while the express apart-

ments are simply left bare."

A. You see there he refers simply to express cars. The ordinary passenger cars against the ordinary express cars and all the cars that ordinarily make up a passenger train. He is correct so far as express cars are concerned but not coaches. He also apportions them on passenger trains.

Q. Your attention on cross examination was called to a statement made by Mr. Knott before the Congressional Committee that the mail was not transported at the same expense as freight and passenger but at a higher expense:

4109 I ask you if you agreed to that and you said you did not.
I want to call your attention to the entire statement made by

Mr. Knott.

Mr. Knott did not put his statement that the mail service was more expensive because the care of mail cars was higher than the cost of the care of passenger cars, but here is what he says:

"The government has the right, and exercises it, of designating

on what trains the mail shall be carried.

It is frequently the case that we schedule a passenger train at a certain rate between terminal points to carry a certain number of cars. Assuming that it is a fast train to which we are referring, the Government begins to add mail on to that train and take it off of other trains—the slow trains. The first thing we know, having scheduled that train up to its maximum of speed with the number of cars assigned to the engine, the Government comes and says, "The mail on that train is so heavy that we will require an additional postal car." and it will order, without any further question on our part, that that train, although scheduled, we will say, for five cars at a maximum of speed, shall carry the additional postal car."

Then he goes on to show that as the preference is that will perhaps result in an entire rearrangement of the whole passenger schedule

for that division. Then he says:

"The result is not infrequent, therefore, that the placing of that additional car upon a train already scheduled will require an entire rearrangement of the passenger train schedules for that division, either by changing the time of arrival and departure of the train, slowing it down so as to carry the additional car, or, as is sometimes the case, actually putting on an additional train in order that the original train may continue to carry the excess Government mail matter at the original schedule rate. Now, those are incidents arising in the business to which we have given no consideration in the analysis to which I have heretofore referred."

That is a very different proposition from the relative expense of maintaining a coach and a mail car, is it not?

A. Why, yes, quite so. You might have to buy a new locomotive to do it.

Q. Your attention was also called to a statement of Mr. Knott at page 604 of the report from which counsel read: Mr. Knott said

here, making this comparison—he first says:

"The operating expenses, as divided between "passenger" and "mails," are arrived at by taking the total operating expenses chargeable against "passenger train earnings" and dividing same on the basis of car mileage. The "passenger expenses" were charged with the total mileage of all coaches, parlor and sleeping cars, together with the total mileage of all baggage cars and one-third of the mileage of "combination" baggage, mail and express cars. The "expenses of conducting mail" were arrived at in like manner by charg-

ing to that account the total mileage of the railway post-office cars and one-third of the mileage of the "combination" baggage, postal and express cars. This is clearly not an unfair basis of division, so far as the transportation of mail is concerned, when we bear in mind that the postal cars are more expensive both to construct and maintain and to operate than the ordinary baggage or express cars."

Don't you say the same thing?

A. Yes, sir, and further that the mail car is heavier.

Q. You were asked on cross examination if this was the first time in all your experience that you had ever attempted to locate the expense of car repairs: do you mean to say you had never given any attention to that subject for the purpose of ascertaining the

relative parts of a car-what it would cost to keep the rela-

4111 tive parts of a car in repair?

- A. I think I said it was the first time I had ever tried to divide it on a percentage basis in comparison with Mr. Wellington's tables. So far as the relative repairs to cars or engines is concerned, that is a matter of daily consideration, study and observation.
 - Q. It has been a matter of study with you for years?

A. Always. That is my business.

Q. Mr. Berry, who is referred to by counsel, is a civil engineer, is he not?

A. Yes, sir. Q. He is not engaged in the same line of work that you are engaged in, mechanical engineering?

A. Not that I know of.

Q. And he was chief engineer of the Union Pacific Railway?

A. Yes, sir.

Q. Would his duties bring him into contact with and give him the experience you have had as a mechanical engineer, in acquiring information as to the cost of keeping machinery in proper order?

A. I do not think so.

Q. Basing his judgment upon the information he would acquire in actual experience in the position he holds as chief engineer, as compared with the man on his road who is engineer of the

4112 Mechanical Department, which would be able to form the better judgment as to the cost of repairs in any particular branch of the service, say the maintenance of a locomotive or maintenance of a car?

A. I should say the engineer of the Mechanical Department. would think Mr. Berry would get his figures from the Mechanical

Department.

Q. I want to call your attention to a table which contains a classification of the expenses used in preparing the formula in statement No. 3 at page 695 of this volume: That formula which seems to be a formula for the distribution of contributing causes of expense, gives the total cost, etc.: I want you to look at that table under Maintenance of Equipment and see if there is any division there or any item by which the expense of starting and stopping freight cars can be ascertained and separated, or which would be of any service in the preparation of the formula for apportioning that class of expense?

A. You mean if there is any basis here for arriving at the dis-

tribution shown in that table?

Q. That is the classification of expense which is used in the formula on the table shown on the preceding page: Is there anything that would afford the means of dividing the cost of starting and stopping freight trains?

A. No, sir.

Q. That table gives the percent that each item contained in it is of the total expense: but it does not give, or purport to give, does it, any information which would enable one to determine the relation of the different items of expense in the different classes?

A. No, sir.

Q. Under "Maintenance of Equipment" is "Superintendents" "Repairs and renewals" "locomotive and passenger freight cars," That means the total expenditure in connection with freight cars; repairs and renewals is 5.32% of the total cost of maintenance of equipment. But that does not undertake to divide that 5.32% between the different kinds of service and repairs that are necessary to keep freight cars up?

A. No, sir.

Q. That is the point to which I wish to call your attention.

A. It does not.

Q. This engineer is discussing the effect that the proper location of the line of railroad will have upon operating expenses. He says in the beginning of his treatment of the subject in which these tables are embraced:

"In order to intelligently locate a line for a railroad, it is essential that a study be made to determine what effect the location and construction cost of different routes would have on the operating

expenses and fixed charges of the road."

In discussing that subject he is dealing with a matter that comes within his profession, is he not, the location and construction of a railroad?

A. Yes, sir. Q. And there is no man so competent to deal with that subject as a civil engineer, is there?

A. I do not think there is.

Q. In outlining his purpose with reference to the relation between the location of the road and operating expenses he says:

"The details of location affecting operating expenses are Gradients, Distance, Curvature and Rise and Fall."

Then he says:

"As the effect of these details on operating expenses varies most directly with the number of trains operated, the "train mile" is used as the general operating unit."

A. Yes, sir.

Q. Then he says:

"In order to determine the relative merits of different locations. values must be ascertained for each detail affecting operating expenses."

Now it is for that purpose he is making this division of these ex-

penses and when he comes to divide it he says:

"In order to obtain a value of these details of location for the use of engineers in the Western states, the general methods of both Mr. Wellington and Prof. Webb are applied in this paper to the operating expenses of the Union Pacific Railroad Company."

He does not say what his opinion is as to the merit or demerit of Mr. Wellington's plan, but he simply adopts it. I presume he thinks it is all right. But there is nothing there to indicate, is

there, that he has made any investigation of it or that he is familiar with that division? Do you see anything there that 4115 would indicate that?

A. No, sir.

Q. He is trying to apply the best knowledge he can obtain from other sources-that is, from authorities that deal with other matters with which he is not familiar to the proper location of railroads, for the purpose of determining and demonstrating the relation between But do you understand from readlocation and operating expenses. ing that, that this engineer had made any investigation of the merits of the methods of division and details of expense at all?

A. I do not think he did. I do not think he says he did. He just used this formula, as they call it, of Mr. Wellington.

 Q. It is a "ready made suit" he bought for himself.
 A. Yes, sir, and at that time it may have answered his purpose. But when you are dealing with cars today the cars that were not in existence when the table was made cars of different type, cars used for different purpose, that were not known in those days, then this whole table changes.

Q. Do you understand from this, that this engineer's discussion involves any consideration of correctness or incorrectness of Mr.

Wellington's rule?

A. No, sir, I do not see that it does there.

Q. Then follows a table No. 1, to which I will call your attention, in which he enumerates the per cent of the various items of maintenance of equipment; and then on page 695 is table

No. 3, wherein he applies Mr. Wellington's formula for the purpose of ascertaining the cost of starting and stopping He practically follows Mr. Wellington in that. That is all there is to Mr. Berry's report.

A. I would say if he follows Mr. Wellington's formula he would probably get the same relative answer as was given in Mr. Welling-

ton's table.

Q. In referring to this report to the Maintenance of Way Association yesterday, you counted upon the division of expense for starting and stopping trains that applies to passenger cars, which is the same?

A. Yes, sir.

Q. You said "It certainly cost a little more to repair the draft rigging on a freight car relatively than on a passenger car?"

A. Yes, sir. Q. You did not explain, although I intended to ask you about it,

why it costs less on a passenger car than on a freight car?

A. The manner of coupling passenger cars together relieves a great deal of the shock in starting and stopping the train, by reason of the buffing attachment. This attachment is not applied to freight cars.

Furthermore, the starting and stopping of passenger trains is usually performed with from three to six or eight cars while with freight trains it may run up as high as 50 or more cars.

4117 The amount of effort required to operate the drawbar to start a passenger train is much less than that on a freight train, on account of the increased weight of the freight train.

Therefore, the strain on the two classes of equipment is very different, being very much less on the passenger train. And the actual performance of work in freight and passenger yards would demonstrate that the repairs to freight cars on starting and stopping far

exceeds that on passenger cars.

Q. In the table prepared by Mr. Berry in the report which has been referred to in connection with him, in making his distribution of cost of car repairs he charges the same per cent, 20 per cent, to passenger and freight cars. There is nothing in the book that indicates why he did it or that he had any reason for it.

I want to ask you if in the absence of any explanation which does not appear that he simply followed Mr. Wellington's form and applied it to passenger and freight cars alike, without regarding the distances to which you have called attention, in the difference in

cost?

A. That may be the case. Mr. Wellington does not refer to any

passenger car repairs at all.

Q. He did make a different application of the expenses in some other matters—that is, time and exposure of passenger and freight cars.

4118 A. I beg your pardon. I would like to ask Mr. Johnson a question.

Mr. Johnson is that what we call "depreciation?"

Mr. Johnson: No, sir, that is an entirely different item from depreciation as we understand it now.

Recross-examination.

By Mr. HILL:

Q. Mr. Wellington's formula did not work up any passenger sta-A. No, sir.

Q. Then Mr. Berry was not following Mr. Wellington on his passenger statistics?

A. I don't know anything about what Mr. Berry was doing.

Q. You don't know anything about Mr. Berry's article except what appears on the face of it, as read here this morning?

A. No, sir.
Q. I suggest then that instead of making comments on it the

three pages referred to be copied into the record.

The paper referred to is in the words and figures following, to-wit:

Economic Basis of Revision Work.

In order to intelligently locate a line for a railroad, it is essential that a study be made to determine what effect the location and construction cost of different routes would have on the operating expenses and fixed charges of the road. Any expenditure in construction which reduces operating expenses by an amount greater than the interest charges on such expenditure will be an economy. The volume of traffic being equal, the most economical location is that which will require the least expenditure to cover the combined cost of interest and operating expenses.

The details of location affecting operating expenses are Gradients, Distance, Curvature and Rise and Fall. As the effect of these details on operating expenses varies most directly with the number of trains operated, the "train mile" is used as the general operating

unit.

4119

In order to determine the relative merits of different locations, values must be ascertained for each detail affecting operating expenses. "The Economic Theory of Railway Location" by Mr. A. M. Wellington, treats the entire subject fully. In this work Mr. Wellington has given to engineers a logical method of obtaining the values for distance, curvature, rise and fall and gradients, but the modern classification of operating expenses as adopted by the Interstate Commerce Commission gives these expenses in greater detail than could be obtained during the life of Mr. Wellington. This detail is of material assistance in following out Mr. Wellington's general method, as it lessens the chance for error in judgment as to the proportion of each item of expenses which will be affected by changes in the details of location.

Prof. W. L. Webb, in his recent work on "Railroad Construction" has developed values for the various details, following the general method given by Mr. Wellington, but using the classification and figures given in the Reports of the Interstate Commerce Commission for the entire railway system of the United States. A study of these reports shows that the average cost per train mile in the more populous states is less than in the states west of the Missouri River.

In order to obtain a value of these details of location for the use of engineers in the Western states, the general methods of both Mr. Wellington and Prof. Webb are applied in this paper to the operat-

ing expenses of the Union Pacific Railroad Company.

Table No. 1 is deduced from statements of operating expenses for the four years ending June 30th, 1902, and shows the percentage that each item of the table bears to the whole. The average cost per train mile is also shown, and this cost is divided between the items of the table according to the percentages shown.

4120 Before proceeding to consider the value of gradients, distance, etc., it is necessary to obtain some basis for arriving at the proportional percentages of the more important items that are affected by changes in location. In many of the smaller items judgment alone has to be used, and in most of such cases a wide variation in judgment will produce but a slight change in the final figures. In the larger items of Maintenance of Way, Maintenance of Equipment and Conducting Transportation, the reports of the various departments for the four years covered by Table No. 1 have been studied and the conditions as they exist on the Union Pacific have been considered. The reasons for adopting these percentages are given in detail in Wellington's "Economic Theory of Railway Location." Tables Nos. 2, 3, and 4, together with the following notes, give some additional reasons, and also explain those points wherein percentages different from Wellington's have been used.

Maintenace of Way.—Total side track mileage is about 34 per cent of mileage of main track. One-half of side track mileage is in large yards and terminals, the balance being side tracks at intermediate stations. There is probably about one-third as much labor spent on repairs of side tracks as on the same length of main track. The same is assumed to be true of material; hence, in these calculations it will be assumed that labor and material in repairs of road-

bed and track are distributed as follows:

Main track Large yards and	torminal		9	9	9	6	0	90		cent.
Smaller stations										cent.
Total								100	ner	cent

Maintenance of Equipment.—From the annual locomotive performance sheets and statistics of train service it is found that total train mileage is but 75% of total locomotive mileage. Table No. 2 is similar to a table given by Wellington, the total cost of locomotive repairs being prorated between the different classes of service according to mileage. The distribution with reference to contributing causes is changed somewhat to fit the conditions on the Union Pacific, curvature on the Union Pacific averaging 17 degrees per mile, whereas Wellington assumed 30 degrees per mile.

Conducting Transportation.—As only 75 per cent of engine mile-

Conducting Transportation.—As only 75 per cent of engine mileage enters into total train mileage, the wages of engine and roundhouse men due directly to hauling trains with single engine are as-

sumed as 75 per cent of the whole.

In train service only about 75 per cent of the crews are paid on a mileage basis, the balance being on monthly wages, and any increase of distance, unless it be great, would affect only 75 per cent of this item.

Fuel, water, oil and waste are covered by Table No. 4.
General Explanation.—It must be thoroughly understood

that the total train mileage includes the mileage of all passenger, freight, work and special trains, whether revenue or non-revenue. In the calculations as to the effect of the various details of location on operating expenses a single train is considered with a single locomotive. Therefore, none of the expense connected with helper, switch or light engine enters into the calculation, and only that proportion of the remainder of each item of operating expenses which is affected by gradient, distance, curvature, etc., is considered.

4122 TABLE NUMBER ONE.

Statement Showing the Average Proportion That Each Item of Operating Expenses Bears to the Whole on Union Pacific Railroad for the Four Years Ending June 30, 1902.

Item No.		er cent whole.
	Maintenance of Way and Structures:	
9	Ballast Frogs and Switches. Protection of River Banks	$0.28 \\ 0.35 \\ 0.03 \\ 8.33$
4. 5.	Repairs of Roadbed and Track	0.10
6.	Spikes and Rail Fastenings	$0.86 \\ 0.55$
7. 8.	Ponewals of Rails	$\frac{2.28}{3.01}$
9. 10.	Renewals of Ties	1.81
11.	" " Road Crossings, Signs, Cattle	0.32
12.	" " Buildings and Fixtures	$\frac{1.99}{0.15}$
13. 14.	Stationery and Printing	0.01
		20.07
	Maintenance of Equipment:	0.00
15.	Superintendence	$0.63 \\ 10.19$
17.	" Passenger and Sleeping Cars	$\frac{2.07}{5.32}$
18. 19.	" " Work Cars	$0.51 \\ 1.03$
20 21	Stationery, Printing and Other Expenses	0.80
		20.55
	Conducting Transportation:	1 50
22	Superintendence	1.50 10.10
9.4	S. Engine and Roundhouse Men.	10.80
25	5. Water, Oil, Waste and Other Supplies for Locomotives	1.36

26. Train Service	5.55
97 Train Supplies and Evnances	
27. Train Supplies and Expenses	1.91
28. Switchmen, Flagmen, Watchmen and Switching Charges	2.36
29. Telegraph Expenses	2.44
30. Station Service and Supplies	5.62
31. Car Mileage	0.61
90 Him of Fourment	
32. Hire of Equipment	0.04
33. Loss and Damage to Freight, Property, Stock; Injury to	
Persons and Clearing Wrecks	1.88
34. Advertising, Agencies, Commissions, Rents for Buildings,	
Yards, etc.	4.66
25 Stationory and Drinting	
35. Stationery and Printing	0.53
-	10.00
00	49.36
36. Taxes Paid	5.64
37. General Expenses	4.38
	2.00
Grand Total	00.00
Average Cost per Train Mile for the Four Years	\$1.17

4123

TABLE NUMBER TWO.

Statement Showing Distribution of Cost of Locomotive Repairs on Union Pacific Railroad.

Distribution of contributing causes in per cent.

	-				P curano	o m ber	Care.
Class of Service.	Per cent repairs charged each class.	Time and expesure.	Stopping and starting.	Getting up steam and terminal work.	Average curvature.	Average grades.	Distance.
Passenger	31.50	2.20	4.73	5.35	0.95	4.41	13.86
Freight and Work.		3.03	6.49	7.35	1.30	6.05	19.03
Helpers	5.46	0.38	0.82	0.82	0.16	2.18	1.10
Light Engines*	6.38	0.45	0.64	1.08	0.19	0.32	3.70
Switching	13.41	0.94		12.47			
**	100.00	7.00	12.68	27.07	2.60	12.96	37.69

^{*}Light Engine Mileage includes return of helper engines.

Only the first two classes enter into train mileage.

Any increase in repairs and renewals of shop machinery and tools caused by increase in gradients, distance or curvature is considered as proportional to the increase in repairs and renewals of locomotives and cars.

TABLE NUMBER THREE.

Statement Showing Distribution of Cost of Car Repairs on Union Pacific Railroad.

Distribution of contributing causes in per cent.

	2.00.00								
Class of Service.	Total cost per cent.	Time and exposure.	Stopping nd starting.	Switching.	Curvature.	Grades.	Distance.		
Passenger Freight and Work.	$\begin{array}{c} 100 \\ 100 \end{array}$	$^{11}_{6}$	20 20	11 16	$\frac{2}{2}$	$\begin{array}{c} 20 \\ 20 \end{array}$	36 36		

Mr. HILL: 4124

Q. As I understand your views as heretofore expressed in regard to dividing the expense of maintenance of equipment, so far as it relates to coaches, mail and express cars, it is that you must get the expenses accruing to coaches and the expense accruing to mail cars and then to express cars, in order to divide them upon a mileage scale, and then the division should be of the respective classes—that is, a division made of the coach irrespective of the mail and express cars and a division of the express cars made irrespective of the coach and mail cars; is that correct?

A. Yes, sir. Q. That is your view of the only fair way of dividing mainte-

nance of equipment expense?

A. I would not say the only fair way because you might want to divide it some other way to arrive at a different purpose. But in order to find the cost.

Q. In order to arrive at the truth we are now trying to ascertain

is that the only fair way of arriving at the truth?

A. I should say so, yes.

Q. All of the coaches, mail and express cars are lumped together, and the expense paid is a lump sum, and this expense is accruing in seven or eight states, is it a fair division then to divide that lump

sum by car mileage, when you divide it between one of those

states as compared with the other six or seven? 4125

A. In order to find the expense between different territories?

Q. Between one territory and the balance of the six or seven

A. If I were to try to find the expense in the different territories I would then work it up on one train here and one train there. I would have trains to deal with instead of individual cars.

And my passenger train expense would be divided on a mileage basis to get the relative cost of the expense in two different states, for

instance.

But when it comes to finding out the expense of different classes and perhaps you have different units; and in the other case you have the same unit-one train in each case-when you want to find out the expense of individual trains, then you must go to the expense of individual cars.

Q. I understand that explanation: but going back to my question. is it a fair division of maintenance of equipment expense of the cars composing a passenger train—that is, of coaches, mail and express cars—is it fair that the expense of an entire system, say an entire road, and the territory through which it runs is say six or seven states, are grouped and all expenses of those different kinds of cars composing the passenger trains being lumped—it is a fair basis.

when you want to find out the expense to charge to one state through which that system runs, to take the expense of that 4126

one state as compared with the entire system? A. I would say very nearly, because the make-up of the different

trains in the different states is very nearly similar.

Q. I understand the question of the trains, but this is not a question of trains; it is a question of all passenger coaches, all mail cars and all express cars, the total cost for say eight states?

A. Yes, sir.

Q. And you want to separate the total cost for one state from the other eight states?

A. I should say the mileage basis would be as nearly as you could

come to it there.

Q. Would it be a fair basis?

A. I should say so, because the relative number of cars would be

operated in the states, according to mileage.

You understand that is a question of trains and not cars. It is a question of trains, as I understand you, not cars; and the same relative number of cars composing trains would operate in the two different states

Q. You have misunderstood me.A. You said "total expense."Q. Yes.

A. That means total trains. There are a certain number of trains operated in this state, and a certain number of other trains 4127 operated in another state and the mileage would be relative, so I say the mileage basis would be right.

Q. If the trains are relative?

A. I say they are relative. Q. What do you mean by that?

A. I mean about a similar character of trains on our railroad operate in all these different states.

Q. You say your trains are relatively the same? A. I think they are.

Q. Your trains in Colorado are about the same trains as you have in Arkansas?

A. I should say relatively so, yes, sir.

Q. The expense of car equipment in Colorado is the same as in Arkansas?

A. I don't know whether that would be the same or not. Now

you are talking about cars. You said "trains" before. You mean that is a very distinctive feature, but it may not be to you.

Q. It looks as if we did not understand each other. I will come

back to my question again:

Your Missouri Pacific System runs in about eight or nine states, does it not?

A. Yes, sir.

Q. The cars which compose your passenger service, which consists of coaches, mail and express cars,—three different kinds of cars?

4128

- A. Yes. Q. They are repaired in various shops on the Missouri Pacific System?
- A. Yes, sir. Q. Those expenses as a whole for those three kinds of cars are thrown into a lump sum, say so many million dollars for a given period, and say six months, and then the car mileage in Arkansas and in all these other seven states, is taken; and that gross sum is divided between Arkansas and those other seven states on the basis of the car mileage of those cars; I ask you if that is a fair division of the expense between Arkansas and those seven other states?

A. I should say yes. Q. You would say it is?

A. Yes, if I understand you aright I should say yes it was.

Q. When you come to sub-divide them as between trains it is not a fair division?

A. This is trains.

Q. No, I didn't ask you a word about trains. I asked you about cars that compose trains. Not trains. I am taking a car as a unit and disregarding trains entirely in my question.

You may have the question read to you and you will see that the word "trains" is not mentioned at all. We are dealing with cars as

a unit, and those cars are three separate kinds.

A. I should say that the division of the total cost of re-4129 pairs to cars, wherever they may run, should be on the basis of the relative cost of the different classes of cars. In other words, if a train of cars has made the same mileage as another train of cars the division of expense on them should be per mile, according to the work done, in order to put those cars in condition to go out again. That is no individual car, but irrespective of what the car is or what it does. That is merely doing the work required on the car for a given distance that the car runs.

I do not see what else it could mean if you are trying to get at

the division of what the repairs on the different cars cost.

Q. Then it is fair to divide the cost of maintenance of coaches. mail and express cars as between states, but it is not fair to sub-divide it, when you come to apportion it between the different kinds of that service; that is, passenger coaches, mail and express cars; is that your proposition?

A. Yes, sir.

Redirect examination

By Mr. MOORE:

Q. When you say it is fair to make a division between states, von mean it approximates as closely to what is correct as it is practical to attain, do you? You do not mean it is an accurate division according to actual divisions, but it is as near as you can attain to a division of that character?

A. Yes. sir. 4130

Q. And if you were going to make a division on a large system of road, the cost of car repairs between two or more states, you don't know anything that would be fairer than that in its approach to correctness?

A. No. sir.

Q. The State in this case has assumed it is going to abandon all theories of division, and dissect this job and cut it up into small parts and then divide the expense of operating those parts on an actual basis; now, when you have ascertained the cost applicable to one state for maintaining passenger cars, then if you wanted to divide that cost among the different classes of cars on an actual basis, and abandon what the defense assumes to be its theory in this case. you would then separate the classes of cars and divide it upon the basis of the expense of each class, instead of the total car mileage of all classes?

A. Yes, sir.

Q. And you say that is necessary if you want to get an accurate division, on account of the fact that one class of cars costs more per car, per unit, to keep in repair than another class?

A. Yes, sir.
Q. That sums up your views in regard to it?

A. Yes, sir. That is an actual and not a theoretical view.

4131 Recross-examination.

By Mr. HILL:

Q. Suppose the car maintenance of equipment expense for a year on a system for eight states was for example \$800,000, and that included these three classes of cars, coaches mail and express cars, all lumped together constituting \$800,000, you would divide that between one state that is going to secede from the "pool" on a car mileage basis; and say that state's proportion assigned in that way would And you wanted to divide that \$100,000 between be \$100,000: passenger coaches, mail and express cars, inside the state, how would you do that?

A. I would take the miles each car made and the cost it would take to maintain the car during the period in question, on each

class of car.

Q. How would you ascertain that cost?

A. Take it off the time books.

Q. But we have started with a lump sum. That is the only factor you have.

A. But we had to get the lump sum off the time book to begin with.

Q. I assume so, but it was all lumped into \$800,000 for the entire system?

A. I say you would have to go back to the time book.

Q. That is the only way you could do, go back to the time 4132 book?

A. You would have to ascertain the cost of the repair and

the time required on each car.

Q. Then if you go back to your time book and locate the actual expense of each class of these cars during that period, from your time books, how would you apply that to the \$100,000 that had been arrived at by not making it up from the time book?

A. How can you arrive at the \$100,00 without going back to the time book? I say you cannot do it. Unless you have your time from the payrolls to start it out how can you get the \$100,000?

Q. I understood you to say a while ago here is a whole system of cars lumped together for eight states, amounting to \$800,000: you would divide that between Arkansas and the other seven states on a car mileage basis of all cars, irrespective of their class. And that would produce say \$100,000, to illustrate.

Now you say when you go to divide up that \$100,000 between those three classes of cars you have got to go back to your original books to find out how the respective expenses accrued to each class:

that is true, is it not?

A. I made the remark that you would have to do that in any

instance, at any time.

To get the cost of maintaining cars, to get the actual cost, must be the actual money spent on the cars, regardless of the states.

When you come to divide among the states I think rela-

tively the mileage basis would be fair. 4133

Now, if you start with \$800,000 you start with that because you must first get your \$800,000 and you must add your labor and material cost together. But when you start with \$800,000 you do not have to go back because you already have it.

Q. You ought not use that, to start with, to divide between Arkansas and the other seven states, ought you not to go back to the

original data?

A. It is the same thing. Your percentage will have to balance the \$800,000, if your figures are correct.

Q. It would have to balance the total, of course?

A. Certainly.

Q. But now you have separated one part of that system on the mileage basis which you say is not correct—at least, you have heretofore said it was not correct?

A. I guess it is as near correct as you can get.

- Q. I am not asking about "near correct" but I ask you if it is correct. And when you sub-divide it you say you have to go back to the original figure out of which the lump figure was made: is that true?
 - A. I don't know that I understand what you mean,

If I spent a certain amount of money and I keep an individual account of it I surely can say what I spent it for,—if I spent \$100 at the end of the month I ought to be able to know what each item

costs me. I don't understand where you get your lump sum.
4134 Q. You have made up a lump sum of \$800,000, which

represents all these various expenditures?

A. Yes, sir.

Q. On all these cars, irrespective of their class?

A. Yes, sir.

Q. Of course, you have made some data—I don't know what you call your office data—but you have some data which represents or could represent every nickel of that \$800,000?

A. Every cent of it.

Q. You found for a period of six months that \$800,000 is the gross sum—instead of calling it a lump sum I will call it a gross sum—that has been spent for the expense of repairing these three kinds of cars. Now, you are called upon to divide that gross sum between one division, being one-eighth of the whole, do you divide it upon a car mileage basis? Ignore the fact that the coaches have been more expensive or the mail car more expensive than the express car. You throw it all together and divide it upon a car mileage basis?

A. I think that would be approximately correct, correct enough for the purpose but not for actual purposes. For actual results you

must take each car and what it costs.

Q. For example, say that \$100,000 is the expense accruing to Arkansas, or that has accrued within that given period. Now suppose you want to divide that between these three different kinds of traffic operating in the State of Arkansas: you would not apportion that upon the car mile basis, then?

A. I would not apportion it upon a car mile basis at any time. I have said that several times. I say, for different parts of the road, the car mile or the train mile might be as near as you can get to it. But that is not going into individual costs. You are dealing with trains in districts, and not cars. You do not run cars in districts but you run trains in districts.

Q. You do not run these cars in Arkansas but you run them as

trains: is that the distinction?

A. You would compare the cars in a train, as I understand it. In districts you are comparing the trains with trains, made up of

equipment cars.

Q. That is your definition. I am not assuming it and I do not think these statistics have assumed it in this case at any time. I think you have injected that into your case although your counsel is not familiar with it.

Taking our former sum of \$100,000 and we wish to divide between coaches, mail and express cars, having reached that \$100,000 on a car mile basis how are you going to divide it between the three classes of service?

A. By the classification of the cars and I think arbitrarily the other should be done the same way.

Q. In other words, is not this a fact: if you use the actual figures in one case you should use them in the other?

4136 A. I should say so.

Q. If you use the unit which is a relatively correct unit, in one case, you would have to use it in the other, wouldn't you? A. Yes, sir.

H. B. Aumocek, a witness of lawful age, being duly pro-4137 duced, sworn and examined on the part of the complainants in rebuttal, testified as follows:

Direct examination

By Mr. MOORE:

Q. State where you live and what your occupation is?

A. I live in St. Louis. My occupation is Chief Mileage Clerk of the St. Louis, Iron Mountain & Southern Railway and Missouri Pacific Railway.

Q. How long have you been with them in that service?

A. Five years on the 23rd day of this month.
Q. You have to deal with the records, do you, which shows the movement of trains and the mileage made by them?

- A. Yes, sir. Q. Have you prepared a statement from the wheel reports showing how cars in through trains are handled in the terminal yards at Hoxie?
- A. Yes, sir. That is, showing the way cars moved in and out of Hoxie.
 - Q. What are the compilations that you have made taken from? A. They are taken from the conductors' wheel reports.

Q. How many have you prepared? A. 37.

4138

Q. Are those 37 part of the trains shown on the sheets of Mr. Hamilton which have been testified to in this case?

- A. Yes, sir. Q. Did you adopt any rules in selecting the trains with reference to the sheets prepared by Mr. Hamilton?
- A. I was instructed to pick out the trains which showed the largest number of cars.

Q. As being the most representative?

A. Yes, sir, that would be the most representative.

Q. Have you had any of these sheets prepared and typewritten so as to be used as exhibits in this case?
A. Yes, sir.
Q. How many of them?

A. Six.

Q. And are these compilations you have made fairly representative, you think, of the movement and the handling of cars in that station?

A. I think they are.

I did not try to pick out the best ones. We were working on

them and I simply chose the ones that happened to come first in the terminals I was working on.

Q. Those that would represent the largest trains shown on your

sheets?

A. Yes, sir.

Q. I want you to file those that you have had typewritten in such a way as they can be put into this case as exhibits, as Exhibit 52.

The papers referred to are marked "Complainant's Exhibit H. B. Aumocek, 52."

Said exhibits are in the words and figures following to-wit:

For Exhibit 52, see Volume 8, page 5683.

Q. These exhibits show the cars that came into and went 4140 out of Hoxie on each of the trains which is referred to in the exhibit, do they?

A. Yes, sir.

Q. And do they show the same with regard to the station of Little Rock, the cars that came into Little Rock and went out of Little Rock on the same train?

A. Yes, sir. Q. You have filed exhibits covering six of these statements: you have 31 that were not prepared to be offered as exhibits?

A. Yes, sir.
Q. Are they prepared in the same way except that they are in pencil form?

A. Yes, sir.

Q. In order to prevent making too bulky a record I will offer only those that you have typewritten, as exhibits in the case and you may hold the other 31 subject to the inspection of the attorneys and experts for the State in this case?

A. Very well.

4141

Q. I have in my hand here exhibit 52, sheet 1: it shows a train that came into Hoxie on October 1, 1907: where did that train come from?

A. It came from the north.

Q. It was a through train, was it?

A. Yes, sir.

Q. What hour did that train arrive at Hoxie?

A. At 3:35 P. M.

Q. Does the first column to the left on that part of the sheet which relates to the cars in and out of Argenta show what cars came into Argenta on that train?

A. It shows the cars into Argenta on train number 55.

Q. I want you to explain one thing: that train is marked "second section train number 71": explain that if you please?

A. Train 71 evidently had more business to handle than they could in one train and this is the second section of train 71.

Q. To go back to what I asked you a while ago: does the first column to the left, to which I have referred in the question asked a moment ago, show the cars which came into Hoxie on that train?

A. It shows the number of cars coming into Hoxie on train secand section 71.

Q. What do the next three columns show, headed October 1, 1907,

11:20 P. M.?

A. That shows when these cars moved out of Hoxie.
Q. What time does this sheet show they came into Hoxie?

A. They came into Hoxie at 3:35 and left at 11:20 P. M. of the same day.

Q. The fourth and fifth columns, train No. 55, show the

number of the train that carried them out? 4142

A. Yes, sir.

Q. All of those cars came in in that way and went out at the hour you mention?

A. Yes, sir.

Q. That train you say left Hoxie at 11:20 P. M. on October 1st? A. Yes, sir.

Q. When did it arrive at Argenta?

A. At 2:20 P. M. of the 2nd of October.

Q. Does the second set of figures represent the trains in and out of Argenta and show when the cars in that train arrived at and when they got out of Argenta?

A. Yes, sir.

Q. Explain those columns: What does the first column to the left of that set of figures show?

A. It shows the cars that moved into Argenta on Train No. 55

at 2:20 P. M. of October 2nd.

Q. Does the sheet show when those cars left?

A. Yes, sir, they left at 6 p. m. on the same day on train first 81. Q. All except those which are marked different in the column? A. Yes, sir.

Q. If any of those cars did not leave at the hour and on the date you mention, it is shown below under the appropriate headings, on what day and at what hour and on what train 4143 they did leave?

A. Yes, sir.

Q. The last two right hand columns, trains and train number, of the Argenta column shows on what trains those cars went out?

A. Yes, sir.

Q. What is that?

A. First train 81.
Q. That is a through train, is it?

A. Yes, sir.

Q. The same explanation that has been made of the figures on this sheet will apply to the sheets on each one of the sheets constituting this exhibit, will it not?

A. Yes, sir.

Q. The figures above the double line to the left, on sheet one, to illustrate, reads:

"Into Hoxie, October 1, 1907, 3:35 P. M., train 2/71."

That intends to indicate the date on which the cars on that train reached Hoxie?

A. Yes, sir.

Q. And similar figures on the right hand side of the sheet relating to Argenta have the same significance as to the time of the arrival at Argenta? A. Yes, sir.

Q. And that is so all the way through?

A. Yes, sir, that is the case on each sheet.

Q. I see one of these sheets, Number 5 of this exhibit, shows cars into McGehee station?

A. Yes, sir.

Q. And those figures have the same bearing and effect with regard to trains in and out of that station as you have described with reference to these other sheets?

A. Yes, sir.

Q. How many cars does this sheet show went into McGehee on that train #182, on the 7th of October?

A. It shows 52 cars moving into McGehee. Q. How many went out on the same day?

A. 51 of those same cars moved out of McGehee on train 182 of the third day at 10 A. M.

Q. Arriving at 11:30 A. M. on the second they went out at 10

A. M. on the third? A. Yes, sir.

- Q. I wish you would turn to the work sheet of Mr. Hamilton from which that exhibit of yours was prepared and examine that sheet and state if it shows that all those cars were handled at that station?
- A. On Mr. Hamilton's work sheet he shows it here on the first day: Second 182 with 53 cars into McGehee. I have shown only 52 because I did not include the caboose.

Q. But with the caboose it would be 53, as he has it there?

A. Yes, sir.

Q. How many cars does he show out on Train 182 on the 4145 third of October?

A. As shown on Mr. Hamilton's work sheet there were 62

Q. How many of those were the same cars that came in on 182 of the second?

A. Fifty-one.

Q. The work sheets show that 53 cars including the caboose, came in on the first day?

A. Yes, sir.

Q. And 51 of the same cars went out on the next day?
 A. You are speaking of Mr. Hamilton's work sheet?
 Q. Yes.

A. He does not show how many of those same cars went out. He shows the total number moved out.

Q. But 51 of those cars were the same cars?A. Yes, sir.Q. The wheel reports show that?

A. Yes, sir.

Q. Excluding the caboose that makes 103 cars that Mr. Hamilton's work sheets show received terminal handling in and out of that station, that came in on that train?

A. Yes, sir.

Q. The same rule for ascertaining the number of cars handled in and out applies to all the cars shown on those work sheets, does it?

A. Yes, sir.

Q. That is as shown by his work sheets contained in these 4146 exhibits?

A. Yes, sir.

Q. He gives them as handled in and out of stations whether Hoxie or Argenta or McGehee?

A. Yes, sir.

B. W. Moore, a witness of lawful age, being duly produced, 4147 sworn and examined on part of the complainants in rebuttal, testified as follows:

Direct examination.

By Mr. MOORE:

Q. State your name and residence.

A. B. W. Moore. I reside at Little Rock, Ark.

Q. What is your occupation?

A. Train Master. Q. Where?

A. Train Master of the Pine Bluff District of the St. Louis, Iron Mountain & Southern Railway.

Q. What was your occupation in October, 1907? A. Night Yard Master at Little Rock Terminals.

Q. What were your duties as night yard master at the Little Rock Terminals in October, 1907?

A. To handle all trains, make up and receive same.

Q. I hand you some sheets of paper showing the "consist" I suppose you call it, of the St. Louis through freight trains to Texas, being train No. 55, during each day of the month of October, 1907. I wish you would attach it to your testimony as Exhibit 53.

The paper referred to is marked "B. W. Moore Exhibit 4148

Said Exhibit is in the words and figures following, towit. For Exhibit 53 see Volume 8, page 5690.

Mr. MOORE: 4149

Q. I want you to show me on these sheets how you handle the cars in the consist of these trains. Take any one of them. Take this sheet (indicating). What I want you to show, Mr. Moore, is how those cars in that train would be handled and what movements would be necessary to be made in handling them, both in regard to trains that went out, going through to Texarkana and points beyond, and those which had to be switched off at Little Rock, either for local purposes or to be put in other trains. Better

begin with the cars going through Little Rock South.

A. (After examining paper handed him). It is shown by this consist that the cars destined to Texas are in the train beginning from the caboose, including 42 cars destined to Texas, and ahead of those are cars for the Valley Division and Little Rock proper and local South, or short points beyond Little Rock.

Q. Which cars were in the front of the train: those at the top

or those at the bottom?

A. The first car mentioned on the consist, at the top, is the car next to the caboose.

Q. That is at the rear of the train?

A. Yes, sir, and following on up to the engine.

Q. The last car on that list is the car which is next to the engine?

A. Yes, sir. Q. You say there are 42 cars shown on that list, that were 4150 going to Texarkana?

A. Yes, sir, 42 to Texarkana, and 16 which were on the head end

of the train.

Q. What would you do in the way of switching and cutting in order to get those 42 cars standing there switched and ready to go on to Texarkana?

A. Those 42 cars would remain on the train on which they were received, and the 16 cars would be taken off the head of the train

and put on such tracks as are designated for that purpose.

Q. We will leave out the 16 cars at present and deal with the

What would be done with those 42 cars, so far as switching in

that yard is concerned?

A. They would remain on the track on which they were received, and there would be added to that train tonnage and forwarded from the track on which we received it. They would not be switched.

Q. There would be no switching service at all in connection with

them?

A. No. sir.

Q. You would send them out in the order they come in? A. Yes, sir.

Q. With a caboose at one end, or if you wanted to put on additional cars on that train you would put them on one end, 4151 then attach the engine and pull out the train?

A. Yes, sir.

Q. That would be all the switching you would render to the cars going through?

Yes, sir.

Q. In going through those sheets I see on every day large groups of cars-for instance I have one before me that shows twenty cars going to Texarkana in a group. Then there is another that has forty or more cars in a group. I won't stop to count them. All the cars, in all cases, on each of those sheets, cars that were going to Texarkana and grouped together, would be left together without doing any switching to them and without any additions, except to

add cars to them in going out.

A. Yes, sir, that consist there indicates how they come out of Hoxie. It is figured that way. Such cars as are grouped there remain intact, while in the Little Rock terminals, and they are added

to to make the train mile tonnage.

Q. The sheet I first called attention to happened to be one showing the consist on October 2, 1907: referring to that particular sheet now for the purpose of illustration, what appears on the others right below the 42 cars on the sheet is 4 cars to Little Rock: what would be done with those cars?

A. It would be according to what their final destination If they are for city delivery or according to what indusis 4152

tries they are consigned to.

Q. If it is for city delivery what would be done with them?

A. They would be switched to an assigned track in the terminal yards and then transferred from there to the industrial tracks either at East Little Rock, Little Rock proper or Argenta, according to where the industry was located.

Q. Would the switching movements on those cars at Little Rock be a separate movement for each car, or would it be that one movement would cover for the whole of them, for any part of the switch-

ing movement you had to perform?

A. If one or more cars were assigned to one industry, and they were together in the cut or group, they would remain intact. Otherwise there would be a switching movement for each car.

Q. If they were going to different places there would be a differ-

ent switching movement for each car?

A. Yes, sir.

Q. The next five cars are destined to points on the Valley Line-Alexandria, McGehee and three to Monroe: what would be done with

A. Those cars would be switched to an assigned track in the receiv-

ing yard, which is Baring Cross Yard, and then transferred from there to the Valley Yard, which is about three eights of a mile or more distant, and there they would be made up in 4153 train order.

Q. Two movements would cover that switching?

A. Yes, sir.
Q. How many movements would ordinarily be required to cover a car that was destined to Little Rock, say to some industry about

Little Rock?

A. They assigned to separate tracks. In territories in East Little Rock we assign them to track 15. Then they go to East Little Rock and are switched to assigned tracks, which we term "make-up" tracks, and then from there to the industrial track to which they are routed.

Q. You first cut them out of the train they come in on and take

them over to what track?

A. To the make-up track in East Little Rock.

Q. That is two switching movements?

A. Yes, sir.

Q. And then where do you take them?

A. Then we switch them to an assigned track, or the transfer engine gets hold of them.

Q. That is three switching movements?

A. Yes, sir. Q. And then what is done?

A. Then we transfer them to the track from which they are unloaded. That is four switchings you make on an industrial car after they are received as they come in on the train.

Q. In view of the location of the industries about Little Rock with reference to the Baring Cross Yards, at which

through trains are received, how does the switching service rendered to cars destined to Little Rock and that rendered to cars which are attached to trains going East and West on the Ft. Smith and Valley Divisions compare? Which has the most switching and how much more?

A. In making a comparison of the switching we make four to one movements against industry switching, compared to what we term train line movement.

Q. You mean a car going to an industry has four times as much

switching?

A. Four to one as compared with a train line car. For instance, an industrial engine will operate on 75 cars as against 300 to 350 or 400 cars handled by the train line engine.

Q. That illustrates the difference? A. Yes.

Q. 75 to 300 or 350?

A. Yes, sir, out of the ten hours. Q. The average will run from 75 train line cars-A. 75 industrial cars against 300 train line cars.

Q. That is what I mean.

A. That is our comparison and the way we figure the comparison of expenses in operation.

Q. Four or five times as much?

A. Yes, sir, and it would cost us \$2.50 to \$3.00 per car

4155 for industrial switching.

Q. How does it cost for the switching movement, in view of the kind of switching movement, in order to transfer cars to industries around Little Rock, as compared with train line switching? How does it compare? Is the distance greater or smaller?

A. The distance is much greater. We receive our trains on receiving tracks convenient to the intersection of main lines, and our trains are handled as they are received, cutting out the industrial cars, line them for such assigned tracks as we assign them for, and then our transfer engines are used for the purpose of moving them from those tracks to the industrial tracks.

Q. What you have said in regard to the manner of handling the consist of the train of October 2, 1907 applies to all trains, does it?

A. Yes, sir.

Q. When did you come to the Little Rock yards?

A. October 1, 1907.

Q. What was the condition of that yard when you came there, in the way of congestion?

A. The terminals-

Q. I just want to know if there was considerable congestion there.

A. Yes, sir considerable congestion.

Q. Do you know what brought about that congestion? A. The heavy movement of business and the failure of 4156 the consignors to unload their cars promptly.

Q. Do you know whether that was done in that section and along

A. It was in that section and also in Chicago, where I had just come from.

Q. How was it in Memphis?

A. There was the same congestion in Memphis.

Q. And how about the Rock Island at Little Rock?

A. The same conditions.

Q. And how about Texarkana?

A. The same condition.
Q. It was nothing peculiar to the Iron Mountain?

A. No, sir, there was a general heavy movement of business. Q. You at once took charge there as Night Yard Master, I believe, in those terminals?

A. Yes, sir. Q. Did that congested condition have any effect in loading up any of the trains either local or through, more heavily than is ordinarily done?

A. We utilized the power to all the advantage we could naturally

put it to-

Q. What did you do in order to accomplish that?

A. We added to our local movements and added tonnage of probably 500 to 600 tons. 4157

Q. To the train?

Λ. Yes, sir, to the train.
Q. What was the object of that?

A. In order to move as many cars out of the terminal and get them to their destination as quickly as possible on the train move-

ments, the number of trains moved.

Q. Now, as I understand it, the through trains at all times carry a larger tonnage-in other words, you try to move those to the full capacity of the engine; that is, at all times on the through trains: is that true?

A. At all times the full capacity rating of the engine is given in

through train tonnage.

Q. That is not true of the local trains? They do not load to the full capacity of the engine pulling the local trains. Now, what was the class of tonnage that was added, as a rule, to the loading of the local trains?

A. Our added tonnage-

Q. What I mean is—perhaps you do not know what I am directing your attention to:-did the added tonnage consist of through or local freight?

A. The added tonnage was the excess or cars which were accumu-

lated from trains from St. Louis, Kansas City, New Orleans, Alexandria and Memphis, going to local points in the local territory or the division territory.

Q. Explain now about how that would be done. For instance, loading a local train South on the main line from Little Rock to Texarkana, with additions from such trains

as you have spoken of just now, what class of freight would be put

on it?

A. Ordinarily and as a usual proposition and also by the direct instructions for the operation of local trains, they could only handle, in order to serve their requirements, such cars containing less than car load or local freight to points on the territory in which they move. Or, cars consigned in car load lots from points on that territory to points moving from that territory and not beyond the destination of the local run.

Q. You say that is the ordinary loading of the local run?

A. Yes. sir.

Q. And what change was that?

A. Our Superintendent, Mr. Cannon, issued instructions to utilize the local power to the best advantage in the movement of business and not to exceed on the local trains, which had light engines of 1200 tons capacity, not to exceed 1000 tons on each local division. Those instructions, so far as I can remember, were carried out to the letter.

Q. Mr. Moore in ordinary times, not taking a congested period such as I was speaking of, in October 1907, but under ordinary normal conditions, what percentage of a local train would be 4159 interstate freight or through freight rather? Now, I am not speaking of an abnormal or unusual time, but just ordinarily.

A. Ordinarily the local would handle only such local cars, less than car load or car load shipments that originate on the local divis-

ion.

Q. The point I want to get at is, if you can state it, about what proportion or what percent of the loading of a local train, in ordinary and usual times, would be interstate and through freights, and what proportion would be purely local business. That is what I want to undersatnd.

Mr. Hill: Are you using the terms "through" and "interstate" as synonymous?

Mr. Moore: In a sense you might say they are synonymous. I doubt if Mr. Moore is sufficiently advised to answer that question.

Q. If you are not sufficiently advised to answer that question I will with draw it.

A. I would not care to answer the question as you have put it unless I was clearly familiar with what the question is whether it is interstate business going to local points on the local territory, or state business originating on the local territory.

Q. I will pass that.

You say there was a large addition to the loading of local trains

during that month of October, 1907, on account of that congested condition of the traffic.

A. Yes, sir. 4160

Q. And a great part of the loading came from trains from St. Louis, Memphis, New Orleans and other points elsewhere outside of the State of Arkansas?

A. Yes, sir.
Q. What was the condition in that respect of the local trains that came into Little Rock from Hoxie? Did they have any unusual accession of loading of that class of freight that came from points

outside of the State?

A. Yes, sir, the local trains would come in with its full capacity of engine tonnage, in every nearly all cases, both North and South, accumulating that tonnage from the White River Division at Newport and the Memphis Division at Bald Knob, making pick-ups at both stations, and coming into Little Rock with full engine tonnage.

Q. What was the character of freight they picked up at Newport

and where did it come from?

A. What they picked up at Newport came from Springfield, Mo, and on the Missouri Pacific territory, in which the business moves over the White River Division, Cotter and so on.

Q. How would it be about that you picked up at Bald Knob?

Where would that come from?

A. That would come from the Memphis territory, which would move from Memphis to Bald Knob on the Memphis territory.

Q. I hand you sheet three of Exhibit 52 in this case, filed by Mr. Aumocek: this exhibit shows the number of cars that went into Hoxie on train 71 on October 12th 1907, and it shows when those cars went out. It also shows the cars on the train that came into Argenta on the 13th of October and went out on the same day.

Now look at that consist and state what handling, according to that which usually prevails in all terminal yards, would be given

to those cars.

A. (after examining paper): From the consist given here-Q. That is what I want you to state, from the face of the consist.

A. The star would indicate such cars as were not consigned through to Texarkana, and the final destination would indicate here that all the cars that were in the train were through cars.

Q. Yes, that is what that indicates. Would there be any switch-

ing service to those cars?

A. The seven head cars would be taken off the train on their arrival at Little Rock.

Q. That is on train No. 55?
A. Yes, sir, that is No. 55.
Q. Would it be necessary to do anything to the rest of them?

A. No, sir, the rest of them would remain intact, as they were received, getting no switching at all except putting on the engine and adding to these cars such tonnage as would make 4162 up the train out of Argenta.

Q. Take a train into and out of Argenta, say train No. 71: take

that consist on its face and show what services would be rendered there.

A. Train No. 71 out of Hoxie into Argenta and out of there is No. 55.

Q. But I am talking about this (indicating paper): take the same thing for Argenta.

A. That is a straight train, there is no exception.

Q. That train arrived, according to that exhibit, on the 12th of October at 2:50 P. M. and went out at 4:20 P. M. on the same day: does that exhibit show there was or was not any service at all, or that it went right through without any service?

A. That train went through solidly, without any disturbance or switching at Argenta. There was no occasion to make any switching on it, as it was consigned to a point beyond Argenta,

being consigned to Texas.

Q. Here is sheet 5 which shows a train that came into McGehee on the 2nd of October at 11:30 A. M. and went out on the next day at 10 A. M. It shows one car was set out at McGehee: what switching would be necessary there and to what cars?

A. All the switching necessary to be done on that train would be to remove the car as noted by the star there (indicating)
 the third car from the caboose, which would be set out and

the remainder of the train would remain intact.

Q. How would that be done to set that car out?

A. The switch engine would couple on to the rear end of that train, on to the three rear cars, and they would switch that car out, then put the caboose on to the other two cars and go ahead.

Q. There would be more switching service to that one car than

to the rest of the whole train?

A. There would not be any service to the rest. There would be one move of the two rear cars which were behind the one that

came out.

Q. What you have said in regard to the switching movement in handling those cars on the exhibit to which I have called your attention, and to exhibit 53 as shown by you, is true in all cases, isn't it? Wherever there is a body of cars coming in on these trains, that are going through, you do not touch them: is that true?

A. Yes, sir. They are not handled or "shifted" as we term it.

Q. If there are some cars on there going out on other lines and some destined to Little Rock, the switching in that case is to the cars going on other lines or cars set out at Little Rock, isn't it?

A. The switching is setting out those cars which may come out of the train, that are consigned to yards at Little Rock or not

in the direction in which the train is moving.

4164 Q. But if there is a block of cars ten or twenty or forty that are going through, they remain intact; they receive and require no switching, do they?

A. No, sir.

Cross-examination.

By Mr. HILL:

Q. Mr. Moore on leaving a terminal would the conductor's wheel reports show the cars in the trains in their exact relation position?

A. The wheel report relative to the position of the cars in the train does not indicate as to their position. The conductor shows foreign and system equipment, in the lines prescribed, on the wheel report, and his wheel report will show the point from which received and the destination, but not the position in which they are located in his train.

Q. My question is, when leaving a terminal—say on leaving Hoxie—how would the conductor's wheel report show that train on

leaving the Hoxie terminals?

A. His wheel report would show, just as I have answered the question, in numerical order, separating the foreign from the system cars, and the empties from the loads, but not respecting the position in which the cars are located in his train. His "consist",

which he gives to the Superintendent, would indicate the position in which the cars are located in the train.

Q. Do you remember the change in the form of conductor's wheel

reports on the Iron Mountain?

A. There is a change but I am not familiar with the change. The new form is being used whenever the old form stationery is exhausted.

Q. Here is a form, Mr. Moore (handing paper to witness), I don't know anything about it, whether it is new or old, but I reckon you do. It is filed as an Exhibit in this case.

You recognize the form, on the face of it?

A. Yes.

Q. It is form 223?

A. Yes.

Q. On the back of this form are instructions and I wish to call your attention to No. 2:

"Cars must be reported in train order commencing with the caboose, to show the make-up of trains leaving district terminals."

A. Yes, but those instructions are not governing this wheel report, but governing other reports made by the conductor as to his consist.

Q. Aren't you mistaken about that? Look at the instruction No. 2, to which I have called your attention, and to instruction No. 1, just above that. That states:

"This report must be filed promptly with the agent or 4166 operator at the end of each trip and receipt taken in train

book for the same."

Doesn't that refer to the instructions on this wheel report?

A. Those are instructions and they are literal in a way, but they are not applicable to certain territories. For instance that rule there, on our territory, cannot be applied.

Q. In other words, you mean those are the instructions that apply

to it, but they are not always carried out?

A. The instructions are for the benefit of the car accountant to

handle your cars numerically, foreign and system separately, in order for the car accountant's office to handle them more rapidly through their office for records. For that reason this column in here (indicating) is shown as indicated. You could not show your cars from the caboose to the engine, as you could not tell where or how many cars on a local train you would handle through from terminal to destination.

Q. When you are leaving a terminal and making up a wheel report, why cannot the conductor report them in their order in the

train as well as in some other manner?

A. You do not make that wheel report until you are at your desti-That is, you do not file it as a matter of record until you nation. have completed your trip.

Q. Do these various consists you have filed here-Exhibit

4167 55 I believe it is—agree with the wheel reports?

A. I am unable to say whether they do or not. seen the exhibits compared with the wheel reports.

Q. How do you know this is the order of the train, just taking the

face of these consists?

A. Just as my evidence would indicate, that that is the usual way. Q. As a matter of fact you do not know whether that order was

carried out or not, do you?

A. There may be some exceptions, but as a general proposition those are the instructions. And as practice has shown me, I have found them such.

Q. That is the way it should have been?
A. Yes sir, that is the way it should have been.
Q. And most generally it is?

A. Yes, sir, and we figure it that way in operating our terminal or division yards.

Q. But as a matter of fact you do not know whether these con-

sists you put in evidence here are correct or not, do you?

A. I did not make them out. I mean I did not check them to

Q. You do not know but what they may be copies of the wheel reports?

A. I am satisfied that they are not copies of the wheel reports, as the records of these consists are kept in the office of the Superintendent of Terminals at Little Rock, while the wheel reports are forwarded direct by the conductor to the car ac-

countant at St. Louis. We never have an opportunity to see the conductor's wheel reports in connection with what he gives us on the consist.

Q. Were these consists you put in evidence here made up in your office?

A. They were made up in the office of the Superintendent of Terminals, I presume.

Q. At Little Rock?

A. At Little Rock and Hoxie.

Q. I would like to have some of the wheel reports of October, 1907, showing the form used at that time you speak of.

gestion which you found existed when you went to the Little Rock yards on the first of October, 1907:

How long did that congested condition of affairs continue?

A. Well, it continued up until some time in January. Q. About when did that congested condition begin?

A. I was on the Illinois Central and I was General Yard Master at Mound, Ills., and it struck the Illinois Central about the 15th of June. I went to the Indiana Harbor Belt Line at Chicago and found the conditions there very congested on the 22nd of August. I remained with that Company up until Mr. Cannon sent for me on the first of October, when I entered his service.

Q. You say it passed away about December or January? 4169 A. It was in January, if I remember correctly.

Q. I will call your attention to the fact, Mr. Moore, that the panic struck the country sometime in October, and if I remember correctly, was in the early or middle part of October of that year.

A. About the 22nd of September—that is, it started then.

Q. The effect of that was that it took some little time for that to be felt in the freight traffic of railroads?

A. Yes, sir, it took up to December.

Q. There was no congestion of traffic in March, 1908, was there? A. We had a normal movement of business which was moving during 1908.

Q. There was no congestion then, but there was a normal move-

ment?

A. Yes, sir, there was a normal movement. We had a heavy movement of business but no congestion to amount to anything.

Q. You have described the switching as between trains and cars that would come in on trains from St. Louis and go through to Texarkana, and those that would be delivered at Little Rock: I wish

you would describe the switching movement of a car of cotton, which, for instance, would come into your yards at Argenta from Morrillton-just describe the switching move-

ment on that car of cotton.

A. A car coming in from the Central Division would be received in what is known as the Valley Yard. If it were consigned to an industry in Little Rock or Argenta it would be switched to an assigned track.

Q. It would be consigned to some compress I suppose?

A. It would be switched to an assigned track in what is known as the make-up yard. Then the transfer engine or the industrial engine assigned to the industrial work would come and get that car, or other cars, and take it and set it to the industry.

Q. It would be a compress in the case of cotton?

A. Yes, sir, it would be to a compress in the case of cotton.

Q. Then what would be done with it?

A. The car would be unloaded at the compress, compressed and then reloaded.

Q. Then what would you do when you would pick up that car

again after the cotton had been compressed?

A. We would take it out of the compress to the make-up track

and add it to the cars that were added to the tonnage at that point, or the extra trains which originate at that point.

Q. How many switching movements would there be on

4171 that cotton, those four cars?

A. Two to the compress and two from the compress out to

the train.

Q. How would that switching movement compare with the movement to an industry in Little Rock—say a shipment of shoes from St. Louis to Little Rock?

A. It would compare equally, if not the same. If the car was not assigned to the house—or to the houses I would say—the mer-

chandise houses.

Q. I mean an industrial delivery. Take a car load of shoes from one of these big shoe concerns in St. Louis, shipped to a dealer in Little Rock: how many switching movements would there be on that car?

A. Four switching movements to the industry.

Q. The same switching movement on that as on the cotton?

A. Yes.

Q. That cotton would likely come in on a local train, wouldn't it?

A. No, sir, not necessarily.
Q. Very frequently it would?

A. In some cases it would and in other cases we run what is known as a pick-up train for cotton, or a cotton train.

4172 Q. Going back a moment to this delivery of a car of shoes to an industry at Little Rock: you say there would be four switching movements to get that car to the industry?

A. From the train on which it arrived to the industry, there would

be four switching movements to get it there.

Q. Describe what those movements are.

A. From the train to the assigned track; from the assigned track to the delivery track in East Little Rock; there the delivery engine delivers it to the industry track on the "make-up" track, and the industry engine takes it from there to the industry.

Q. It makes practically the same number of switching movements

as the cotton?

A. Every car practically that comes into Little Rock receives four switching movements from the track to the industry, and probably by four different engines.

Q. Is that true of other terminals in Arkansas?

A. Where there are industries. The movement by the road engine at Hoxie and then the movement by the road engine to the industry would make only three movements. But the peculiar condition at Little Rock and the distance you have to handle your industry business, taking that into consideration you have got to make four switching movements.

Q. That grows out of the fact that Little Rock is in a separate place from your tracks in Argenta and the industries are 4173 across the river and you have switching yards across the river

from your industries?

A. Yes, sir.

Q. How many movements would you have to have to deliver all the Argenta business?

A. With the exception of company material there would be four, but on company material there would be three.

Q. There would be three movements on that?

A. Yes, sir, three in one instance and two on the other.

Q. Leave out company material.

To illustrate that point take a grain house such as Mr. Bernstein's, who has a great many cars of grain coming into his house: suppose it came on the White River division from Newport and from there to the north?

A. Yes, sir.

Q. How many movements would that grain have to be delivered

to Mr. Bernstein?

A. It would come in on the delivery track to the assigned track, say track number nine. The Valley yard assigned engine would come to track nine and pull it into the yard. He would assign it to track ten—that is the Bunch elevator accumulation track. Then he would take that from track 10 and deliver it to the Bunch elevator whenever they can receive it.

Q. That would make three movements on that?

A. No, sir, that would be four movements.

Q. I did not follow you, then, because I did not so understand you.

4174 A. There would be one movement from the train to the assigned track in the receiving yard; then a movement from the make-up track in the receiving yard to the Valley yard; that is two movements. Switching it from the assigned delivery track in the Valley yard to track 10 is three movements. And from track 10 to the Bunch Elevator is four movements.

We cannot get out of four movements to any industry in Little Rock with the exception of the movement of company material.

Q. Then all the grain that is handled in Little Rock receives four terminal movements?

A. Yes-well, I will make an exception to that. On grain received from the central division.

Q. You mean Fort Smith?

A. Yes. That would receive three movements. Q. That will receive three if it goes to the Bunch Elevator?

A. Yes, sir.

Q. If it goes to Little Rock proper it will receive four movements?

A. Yes, sir.

Q. Where does the bulk of that grain come from, that is handled down there? Off what division does it come?

A. Change that question to "territory" and I will answer it. Judge.

Q. All right.

A. Then I cannot answer it correctly as to the amount.

4175 We receive both from the central division and the St. Louis and Illinois territory—I mean by that the Kansas territory and the Illinois territory and the Missouri territory.

Q. The point I am trying to get at is, is it brought into your yard over the central division or is it brought in there from the

north?

A. Both ways.

Q. Which way is the bulk of it brought in?

A. It will very nearly equal itself, with probably a little exception in favor of the central division.

Q. Let us trace that grain movement a little bit further:

Suppose it comes in to the Bunch Elevator and is delivered to Bunch there. It has then received either three or four switching movements, depending upon from which division it reached there. Then when the Bunch Elevator Company ships out that car of grain, say to Malvern or some other point south of Little Rock, how

many switching movements would there be on that?

A. The Bunch swich engine would go in and switch the elevator and throw it on a track there in the Valley yard. The Texas or south end engine, which is in the main yard, will come up and get that delivery and carry it to the south end of the yard. Now, he will switch that to an assigned track, local—what we term "local" or "through". If it is going to Arkadelphia, Hope, Gurdon, Benton

or any of those local points, it has got to be made up in 4176 station order, each car represented by the station in the direction in which the train is moving. It may take twenty-five tracks to make up train 71, which is what we call our "short

load" train out of there.

Q. It is your local?

A. No, not a local.

Q. It does local work in there?

A. It handles interstate cars on short local deliveries. That car would receive four movements and probably five or six before you would get it properly designated in the train, in its proper position for the train crew to set it out without any switching.

Q. Then tracing the history of a car of grain which has gone into the elevator there and then gone out to some local point, it has

received altogether some eight or ten switching movements?

A. Yes, sir, eight or ten movements if it is properly handled as it should be and moves in the train in the rotation in which it ought to be.

Q. That is, more switching than for any other line of work you have?

A. The industrial work, yes. The industrial work as I stated in my evidence before—on any industrial cars the best we can expect would be seventy-five cars to the engine for ten hours; while 4177 a train line engine would handle from 350 to probably four

or five hundred cars.

Q. Have you in mind cotton and grain when you speak of in-

dustrial shipments and also shipments delivered over at Little Rock to merchants?

A. Any commodities which go to the consignee's tracks in Little

Rock.

Q. All cotton and grain goes to the consignee's tracks in Little Rock, doesn't it?

A. Not altogether.

Q. Take the cotton, it all goes there, doesn't it?

A. Not in all cases, no sir. We have compresses at other points outside of Little Rock which compress that cotton and then it goes to New Orleans and Galveston.

Q. Of course it would be compressed at other points such as Fort Smith, etc., but I am speaking of cotton that would not be com-

pressed.

A. Of cotton compressed in transit?

Q. Little Rock is a milling-in-transit or a compress-in-transit point, is it not?
A. Yes, sir.

Q. And all of that would have at least four switching movements?

A. Yes, sir.

Q. Take the grain, all that comes through as milling-in-transit grain, coming through to Little Rock to be cleaned and then goes out again, all that would take eight or ten switching movements?

A. It would take, as I have illustrated, four movements 4178 to get to the elevator, and out of the elevator it would depend on what its final destination would be. If it was a through car to Alexandria or New Orleans it would receive two movements out of the Bunch Elevator.

Now the same class of commodities out of the elevators in East Little Rock would require four movements to to get it into the as-

signed trains.

The same class would be indicated on stuff going south or west or

north, it would take four movements.

It varies from two to four movements on through stuff and from

two to, I will say, six movements on local stuff.

Q. You could not get two movements on local stuff, could you? That would come in from Kansas City and be shipped out to Pine Bluff?

A. From the elevator I am speaking of now.

Q. Now, let us get that a little clearer. As I understand you, it would take a minimum of three movements to get it into the elevator, and not less than four or more than six to get it out of the yards, depending on where the car is going: is that right?

A. That is correct.

Q. I believe you say on cotton, taking Little Rock as the concentrating point, there would uniformly be four movements: is that right or do you mean simply four on the illustration I put to you?

A. The four movements are absolutely necessary and probably with a congested condition of the compress when they 4179 are not taking your cotton, we would make probably five or

six movements with it.

Q. I understand that is true not only of cotton but everything else when congested conditions exist?

A. Normally it would be four movements.

Q. Would that be true where cotton would come in, whether

from the central or any other division?

A. The compresses are so located that that is true. There is but one exception, and that is the Bunch elevator, on the movement of cars to and from industries.

Q. How about the Dickinson brick plant? How about the move-

ment there?

A. The Dickinson brick plant is so situated that under normal conditions we move that business with four movements, but under adverse conditions it would require about sixteen.

Q. Four movements is the minimum?

A. Yes, four movements is the minimum on the movement of all business to Dickinson. And the same thing applies on the return business out of Mr. Dickinson's plant.

Q. Take cotton seed products: I don't know that I know where

those mills are located. Are they in Argenta?

A. Some of them are in East Little Rock.

Q. How is the movement of cotton products, such as seed, oil, etc.
A. The movements are all just about the same. They are

4180 peculiarly situated. It is impossible to move a car from a train inbound to an industry without four movements of it, to any industry, with the exception of cars coming in off the central division going to the Bunch elevator. And then you cannot get them in there under two movements unless he is ready for them. Otherwise it will take from three to four movements to get them in. We have got to put them on the assigned tracks for the Bunch elevator and if he is waiting for them when the train arrives you can get them right into his elevator, but otherwise you must throw them on an assigned track.

Q. You have explained that fully.

Take cotton seed and cotton seed products: how many switching movements would it require to handle that class of traffic?

A. Ordinarily, four movements.

Q. That would be the minimum, four?

A. Yes, sir.

Q. How about lumber: are there any plants in Argenta or Little Rock taking a milling-in-transit rate on lumber?

A. I don't know of any at the present time.

Q. We are talking about 1907?A. I do not recall any at that time.

Q. How about Mr. Abeles, did he not have a plant there?

A. Mr. Abeles had a plant there, but he was doing very little business at that time, if I remember correctly. The lumber business at Little Rock at that time and at the present was local out of Little Rock.

Q. There was a good deal of it local?

A. Yes, locally out of Little Rock, but the principal movement of lumber is through business.

Q. Do you have an icing station there at Little Rock for these through refrigerator cars?

A. Yes, sir. Q. What is the movement on that so far as switching is concerned from the train to the icing plant and from the icing plant back to the train? How many movements would that require ordinarily?

A. If it is necessary to throw the car to an assigned track—— Mr. Moore: Take the ordinary course. That is what he wants. A. Ordinarily the minimum is two and the maximum is three.

Mr. HILL:

Q. There would be two to three switching movements on that?

A. Yes, sir.

Q. You have a cattle feeding station there, haven't you?

A. Yes, sir.

Q. Do all the cattle stop there?

A. Yes, sir.

Q. What is the switching movement on that?

A. The same applies to the cattle. Q. Two or three movements on all of it? A. Yes, sir. 4182

Q. Are there any implement transfer houses there where a car is taken into the implement house, filled and then sent on?

A. There are wholesale houses there that handle everything—commission houses.

Q. Say take the John Deere Plow Company stuff: that comes down there into one of those houses and that same car is taken out, the same as you take a car out of an elevator?

A. They have an agent and those cars coming in there go to the John Deere Plow Company or agent. That agent unloads it and

then ships them out locally or distributes them.

Q. That comes out in carloads a good deal, does it not, the same as it comes in?

A. I can't recall any such instance.

Q. I know they do up our way with some of those large concerns.

A. They have too many agents through Arkansas at local points to justify carload lots.

Q. That is done at other places to your knowledge, is it not?

A. Yes, sir. Q. You don't recall any considerable movement of that kind at Little Rock?

A. No, sir.
Q. What place have you in mind where that kind of handling is had?

A. Well, Cairo, Illinois, for instance.

Q. Is not Oklahoma City a very striking example of it? A. Yes, sir, and Springfield, Missouri, and St. Louis, Mis-4183 souri, for instance. I can't recall any place in Arkansas.

Q. There is some of it in Fort Smith, I know.

A. There are wholesale houses there and lots of implement agents, but I can't recall that kind of shipment.

Q. We will not dwell on that if you don't know.

You were telling us that in times of congestion you would load up the local freight trains with through traffic: that would give the through cars a great deal of extra vard handling at various termi-

nals in the state, would it not?

I will illustrate what I mean, if you do not quite understand: suppose you have more cars there in the Hoxie vard than you could carry off in your trains, there being congestion there: you would load them up and take them down on the local train to Little Rock and then carry them out of Little Rock on the through train:

Is that the way you handle it in times of congestion?

A. Yes, sir, we add such tonnage to the local trains as would be

justified in the handling of our business.

Q. That would give extra handling to all such through stuff as was added to the local trains and then carried to another station and put in the through train: does not that give extra yard movement?

A. It would give extra vard movement against that which would

come in in solid trains.

4184 Q. That is what I am speaking of. You were talking about carrying these through in solid trains, but in times of congestion you would load this on the local trains and that would give extra handling to the cars you added to the local trains as compared with what they would receive if they had been carried on through trains, would it not?

A. Yes, sir.

Redirect examination.

By Mr. MOORE:

Q. From your experience in handling cars at the Little Rock terminals, do these consist sheets which you filed as your Exhibit 53, speaking independently of the consists, show the order and arrangement and conditions with reference to the engines that the cars on the through trains usually come into the terminals?

A. Yes, and in such exceptions as are made the conductor makes

a note on his switch list, which is the consist.

Q. What I mean to ask you is, did you look over the consists you filed here, these thirty-one sheets?

 A. Yes, sir.
 Q. And is it your experience and observation from handling cars at that terminal, that they are correct?

A. Yes, sir.

Q. You were asked on cross-examination if there was congestion in March, 1908; was there not a heavy movement of empties in 1908 that had the effect of obstructing the movement of 4185 trains?

A. There was a heavy movement of both empties and loads.

Q. Did that have any obstructive effect on the movement of through trains in the state of Arkansas?

A. Yes, sir, the return movement of empties after the orders had been filled for the delivery—an empty would onstruct just as much as a load.

Q. The Texas railroads were sending back cars during that

period?

A. All connecting lines were delivering back for home delivery

all classes of empties.

Q. You spoke of a good deal of cotton being brought in October, 1908, on the pick-up trains, compressed at Little Rock.

What is a pick-up train?

A. What we term a "pick-up" train is one made up at Little Rock to start back and pick up all the cotton loaded on that territory during that day, for Little Rock compressing.

Q. Does most of the grain that comes into and passes through Little Rock come in on the central division or over the main line—

or did it in 1907?

A. Well, I am not in a position to state positively as to the correct amount or the division of the same. We received grain from Memphis, St. Louis and Kansas City, Memphis and St. Louis grain coming over the main line and the Kansas City grain coming over the central division.

Q. I want to see if I understand you correctly in regard to the switching service required by grain: you spoke about the 4186 reshipment of grain that went through the elevators at Lit-

tle Rock: that grain would be shipped out, some on the Valley Line and some on the main line south, you say: now, what is the difference in the switching that is required for the grain that was shipped out on the Valley line to Pine Bluff, and points in that direction, and that shipped out to points on the main line?

A. That would be two to one. Two movements on the main line to one movement on the Valley Line to the Bunch

Elevator. I explained that is made on the Bunch Elevator.

Q. And grain coming out on the Valley Line would not receive the amount of switching that that going out on the main line would?

A. No, sir, because the Bunch Elevator is located in the Valley

Yard. We have solid trains of grain from Texas.

Q. There is a good deal of local movement from the industries to points out in the State, shipping brick and commodities of that sort to industries?

A. Yes.

Q. Will you state the entire movement in consigning from the Dickinson brick plant, say to be shipped out into the State, beginning with the movement of the car out to the plant for the purpose of being loaded. That would be the first movement, wouldn't it?

A. The first movement is to accumulate the cars and assign them

to the tracks for Dickinson.

Q. In order to do that you would have to switch them out to the plant?

A. Wait a moment. I am in the make-up yard where the cars

would be accumulated as they come in to go to the Dickinson plant. From the time they reach Little Rock they are assigned and carded showing the final destination as the Dickinson brick plant.

4188 Q. That would be an empty car?

A. Yes, sir, that would be an empty car. It is drawn in on a track known as the track assigned to Dickinson. The engine then will take that car, after switching it into this track, and the transfer engine will take it to the Little Rock Union Depot. Then the Union Depot engine will take it from there to Dickinson's plant and set it in on the assigned tracks there to load the brick.

Q. Then it is left there? A. Yes, sir, it is left there.

Q. And the engine comes back?

A. Yes, sir.

Q. Then what?
A. Then when it is loaded the billing is received from the plant for it and an engine goes out and gets it and brings it in to East Little Rock, and at East Little Rock it is switched to go wherever the cars are consigned, to the levee, or out on the road, if a Line car; and them the transfer engine gets hold of it and brings it to the Argenta train yard. Then the train yard engine gets hold of it and switches it into the train and it goes on. Four or five or six moves is the best you can get out of it.

Q. How many movements would it involve, the switching move-

ment you have given?

A. Four to the plant and five back getting it into the train.

4189 Recross-examination.

By Mr. HILL:

Q. There is one other class of interstate shipments that I want to ask you about and that is oil: how is oil, coal oil, or kerosene handled?

A. You mean relative to the amount of switching it receives?
Q. Yes, I am on the switching proposition now.

A. It would receive the same switching as any other commodity assigned to the various different industries.

Q. It would receive the same switching that you have heretofore

explained about industry switching?

A. Yes, sir. There would be no exception as to oil, with the exception of its explosive position in the train in which we send it out. We might have to make extra switches in order to get that into the train as prescribed by our explosive instructions.

Q. Doesn't that make more switching? A. Yes, sir, that makes more switching.

Q. In an ordinary normal movement of the oil cars how many switch movements would there be on it there at Little Rock?

A. The same as I have illustrated that applies to industrial switching, with the exception of placing it properly in the train, ten cars from the rear or fifteen cars from the head end of 4190

We have got to accumulate that oil on a certain track

and get a sufficient number of cars to cover the oil from the engine and then cut it in.

Q. That would be the same when the train is made up at Hoxie? A. It applies at any division point or any intermediate point where oil is moved in the train. There is a statute which covers its position in the train.

Q. I understand about its position but I do not know how you work that out. How many extra switching movements would it

take to comply with that statute?

A. It is a normal switching movement to accumulate that oil in the track, just plus another movement to cut it into a train of cars. Q. There would be normally 5 movements on the oil car?

A. Yes, four to the industries and five out of the industries to the train.

Q. Seven altogether?

A. No, sir, there would be four movements to the industries and five movements out of the industries to the trains moving out of the terminals. That is, you would have to hold the oil out separately on a track all to itself, and fill up your train, and then pick up a sufficient number of cars to cover that oil car's position in the

train and then pick up your oil and set it back in the train,

covering the cars from your engine. 4191

Q. You send out those oil trains about twice a week:

isn't that the rule?

A. We sent oil out of Little Rock as it accumulates. There is no oil except cotton seed oil and there is no coal oil except such as is shipped locally.

Q. Those are small shipments, less than car load?

A. Yes, we have small shipments of less than car load, twice a week to local points North and South and East and West.

Q. Now, how about the return of the tank cars?
A. Empty?
Q. They have to go back empty. They are not like other cars?

A. They are placed in the train without any respect to their position, unless they have been loaded with certain classes of oil, nitro or gasoline or any explosive, when the gas might accumulate in the empty car. Then those cars are carded showing what commodity they were loaded with, and then they must be switched back, and as much respect is shown those cars as if they were loaded.

Q. That is an empty movement back always on those tank cars?

A. Yes, sir.

Redirect examination. 4192

By Mr. MOORE:

Q. You were discussing a while ago the switching movement of those grain cars to get the grain to and from the elevator: those cars handled in that way are usually moved in large blocks or groups, aren't they-that is, a large number of cars, a large cut of cars?

A. Consigned to the elevator?

Q. Yes.

A. We may have a solid train of grain coming in to the Bunch We may have a solid train coming in from New Orleans.

Q. And those would all be moved in one cut?

A. Yes, sir.

Q. And one switching service would frequently move twenty to thirty cars?

A. Yes, if they all came in, accumulated.
Q. Don't they always come in in a large number of cars?

A. Yes, sir, they usually come in in solid trains.

Q. How is it about the cattle cars that you bring to the yards to feed? They come in in groups, too, don't they?

A. Yes, stock is usually covered by four or five cars of dead

freight from the head end.

Q. They are moved in one cut?

A. Yes, sir.

Q. Just one switching movement is required for all those cars?

4193 A. Yes, sir.

Q. Is that true about the icing plant?

A. Yes, sir, to and from the icing plant. And to the stock vards and from the stock yards to the train.

Q. And there is very little switching of the individual cars: it is switching that applies to these large groups of cars?

A. Yes, sir.

Q. And that class of business moves on these heavy through trains, doesn't it, both the grain and the stock?

A. Yes, sir, grain and stock. In all cases they are high class frains.

Recross-examination.

By Mr. HILL:

Q. Let me see if I understand that cattle business: those cattle have to be unloaded, don't they?

A. Yes, sir.

Q. And reloaded?

A. Yes, sir.

Q. Each individual car has to be "spotted" to the chute to be unloaded, and to be reloaded?

A. Yes, sir.

Q. And whether uncoupled or not each car has to be "spotted"

to the chute?

A. They have five chutes and we can spot five cars at a time. The chutes are so constructed that when you spot one car you spot the five.

Q. But you could not spot fifty?

A. No, sir.

Q. How about the ice house? 4194 A. The ice house holds five cars.

Q. It is a five car capacity house?

A. Yes, sir.

O. How many cars can you put on the Bunch elevator tracks

A. We can put twenty-five cars. We could put thirty but he cannot drag any more than twenty-five.

Q. He has a winch on there?

A. Yes. We can put twenty-five cars on there.

Redirect examination

By Mr. MOORE:

Q. Is it as expensive to spot those cattle cars for the purpose of reaching the chutes as it is for moving a car ordinarily, say to an industry? That is, where those cars come together?

A. Taking into consideration the distance necessary, it does not cost you as much to move your engine three or four car lengths as

it would to move it half a mile.

Q. You can spot five cars at a time at the chutes? A. Yes, sir, five at a time.

Q. There would not be any comparison in the switching expense, on the two services, would there?

A. No, sir, the only thing you would figure there is the amount of time consumed in loading the stock.

JOHN CANNON, a witness of lawful age, being duly pro-4195 duced, sworn and examined on the part of the complainants, testified as follows in rebuttal:

Direct examination.

By Mr. MOORE:

Q. State your name, residence and occupation?

A. John Cannon; Desoto, Missouri; Superintendent of the St. Louis, Iron Mountain & Southern Railway Company, Missouri Division.

Q. What were you doing in 1907?

A. From June 1, 1907 the balance of the year I was superintendent of the Arkansas Division of the St. Louis, Iron Mountain & Southern Railway with headquarters at Little Rock, Arkansas.

Q. Your headquarters were at Little Rock? A. Yes, sir.

41

Q. You were in Little Rock, then, during Oct. 1907? A. Yes, sir, I was superintendent of that division.

Q. Do you know how the consist sheets there were introduced in evidence here yesterday while Mr. Moore was on the stand, being Complainant's Exhibit 53, were made up?

A. Yes, sir.
Q. Please state how they are made up?

A. On the arrival of a train at Little Rock the conductor hands in to the yard office a switch list, giving the numbers of the cars in his train as they stand.

Q. You mean the order in which they stand?

A. Yes, sir. With this switch list is all of the waybills that he

brings in with his train. This switch list is checked against the waybills and then the cars are written up in train order in one of the "in-bound" books and from this book record the consists produced here yesterday was copied.

Q. Barring some clerical error that might creep in, those consists show the order in which the cars came into the terminal, do they?

A. Yes, sir.

Q. I hand you sheet one of Exhibit No. 52 filed by Mr. Aumocek, which shows the consist of a train into Hoxie and out of Hoxie on Oct. 1, 1907: State if you are sufficiently acquainted with the manner of handling cars at terminal stations to state how such consist as shown on this sheet would be handled with regard to the switching service?

A. Yes, I am sufficiently familiar with that to answer.

Q. Will you state, taking the Hoxie train there how the cars in that train are handled by the switch engine and what service is rendered to the different classes of cars and what service to the individual cars and to the groups of cars?

4197 A. 49 cars shown as arriving at Hoxie at 3:35 P. M. October 1. 1907 in train second 71 were handled out of that sta-

tion on train 55, all but seven of them.

The ordinary manner of handling the train in Hoxie would be to pull it in on one of the receiving tracks and the "bad order" cars and cars for local points between Hoxie and Little Rock would be Ordinarily there would not be to exceed two or three cut out. switches to accomplish this. The bulk of the cars would be received on a track and go forward from that same track.

Q. There is a group of 11 cars at the top that went right through from Hoxie to Little Rock. Two were taken out. Then there is a second group of five cars, and a car or two taken out. And then there is a group of 20 or 25 cars that go on to Little Rock: was there

any switching done to that first group of 11 cars I spoke of?

A. No. sir.

Q. The first thing would be to take off that top car, which it seems was cut out at Hoxie?

A. Yes, sir.

Q. And then the next two cars the sheet shows were cut out two

switches, I suppose?

A. They would get off down here (indicating on sheet) and pull that whole cut out, and "kick" this car (indicating) in and kick that out (indicating) back on the train, and kick these (indicating) back on the train, and then kick these two out (indicating). There would be about three moves in there.

4198 Q. And those moves were for the purpose of getting the

cars out that would be left at Hoxie?

A. Yes, sir.
Q. The last batch of cars there, 25 cars, would they receive any handling at all?

A. No, sir.

Q. You stated in describing the movement here that certain cars

would be kicked out: you mean the cars that were left at Hoxie would be kicked out?

A. Yes, sir, the cars that would be set out at Hoxie. Q. Those are the cars you referred to when you said "this car" and "that car" would be kicked out?

A. Yes, sir.

Q. Mr. W. B. Moore who testified yesterday in this case referred to pickup trains that were sent out to bring in cotton to compress points: what are those trains? Just describe what class of trains

they are?

A. These are trains we run nearly every day during the entire year, and during the cotton season in Arkansas, there are two or three run every day. We call a through freight crew-for instance he is going up the central division-or I will confine myself to my own terminal.

Q. No, describe it just as it was in Arkansas in 1907?

A. That was my territory in 1907.

Q. That is what you mean by your own territory?

4199

A. Yes, sir.
Q. Proceed.
A. Take a train going out of Little Rock down toward Texarkana: we would start him out with loads destined to stations between Texarkana and Gurdeon and empties for cotton loading. He would distribute those empties where needed and would set out the loads.

He would turn at Gurdeon and he would pick up the cotton that had been loaded during the day, and he would get a train possibly in

five or six stations.

Then he pulls that train into Little Rock. That is a through freight train, as we look upon it; that is, as the Operating Department looks upon it. We pay them full through freight pay and they are not regarded as local in any sense of the word.

Q. Are they through scheduled trains?

A. They are not scheduled trains at all, but are "extra" trains, handled by the train dispatcher, and are not on the time card.

Q. Is a good deal of the cotton that is brought into the concentrated or compressing points picked up by these pickup trains through the State of Arkansas?

A. During the height of the season, yes.

Q. Mr. Moore testified yesterday in regard to the congested condition that existed in the State of Arkansas in October, 1907: I wish you would state what effect the conditions he described had upon the movement of freight on the two classes of trains, the through

trains and the local trains: whether it created any accession to the loading of either of those classes of trains, and if so 4200

A. During the Fall of 1907, on account of the very heavy movement of business, we departed from our usual practice in loading our local trains. The local trains during normal times handled nothing but less than carload freight and what we call "short loads"; that is, loads destined to stations on the local train territory.

During the Fall of 1907, in addition to that class of loading the tocals were filled up to nearly the maximum tonnage with throught loads, loads that went an entire distance over the district the local was run on. That excess tonnage ran all the way from 300 to 800 tons per day.

Q. You said 300 to 800 tons: do you mean gross tons or net

tons?

A. When I speak of tons I always have reference to gross tons, as an operating man never treats of anything else but gross tons, the

car and the load together.

Q. What was usually the character of that excess tonnage? it freight that originated in Arkansas or that came into the state from other states and then went out? Did this freight come from Missouri, was it through freight coming from other states or was it freight that originated in Arkansas?

A. Most of it was interstate traffic. Of course, there was a lot of state traffic handled also. But the major part of it was interstate freight, through loads that were ordinarily handled in our through

trains, going to St. Louis or Memphis and to points in Texas

4201 or Louisiana.

Q. What would you estimate was the proportion or per cent of interstate freight carried on local trains during the period mentioned, that is, the month of October, 1907?

A. In my opinion our local trains handled approximately 75%

interstate freight during that period, October, 1907.

Q. What would be the proportion in ordinary times, when conditions were normal in the movement and handling of traffic? What would be the proportion then of state and interstate freight carried on local trains?

A. During normal times the interstate traffic on local trains does not amount to but 25%, because we did not handle any through

loads on locals during normal times.

Q. The conditions would be reversed then?

A. Yes, sir, practically . ersed.

Cross-examination.

By Mr. HILL:

Q. Mr. Cannon, where did you get your information to make this estimates you have just given about October, 1907, that 75% of the traffic on the local train was interstate and at other times it was about 25%?

A. From personal observation, riding over the road on the trains,

looking over the reports and the consists, of the trains.

Q. You have no statistics on the subject? A. None whatever.

Q. It is just your personal opinion?

4202 A. That is all.

Q. That would require scrutiny of the waybills in order to form an opinion of that kind?

A. The destination of the cars gives you the same information.

Q. That is true. You get that from the waybills or some other source?

A. It is compiled from the waybills. The reports I would see

would be the conductor's reports, the consists and so on.

Q. Have you, before this case came up, had any occasion to study the problem of how much interstate traffic and how much intrastate traffic would be carried on the separate classes of trains?

A. I never made any particular study of it, no, sir.

Q. In operating a railroad you do not pay any attention to state

or interstate, do you?

A. I base my conclusion as to the proportion of state and interstate freight upon the fact that during the Fall of 1907 our local trains were all loaded practically to the maximum tonnage of the engines and the only way we could load those engines to that maximum tonnage would be in handling interstate freight.

Q. That is not an answer to my question. It is a very good reason

for your opinion but I called for another answer.

A. I guess I don't understand the question.

Previous question is read to the witness as follows:

4203 —. In operating a railroad you do not pay any attention to

state or interstate, do you?

A. No particular attention to it, but an observant man can always tell, and always knows, where his freight is going, the destination of his freight. He comes in contact with that every time he hits his office and every time he gets on a train.

Q. The thing you look at is the operation of the local trains and

of the through train, isn't it?

A. That is what my reply specifically referred to.

Q. That is the way an operating man looks at it, isn't it, from the standpoint of a local train or the standpoint of a through train?

A. Why, of course, and you know where your freight is going. Q. Of course, it makes no difference to you whether it crosses the state line?

A. No, sir, none whatever.

Q. The question is whether that freight is going on a local or going on a through freight train, not whether it crosses the line of Arkansas or Missouri?

A. The only question with me is to get my train loaded and moved on and off my division as quickly as possible.

Q. Your problem is not about the state line?

A. It does not have any reference to the operation of my railroad But I always know all about that, of course. is, anybody who keeps his eyes open, he cannot help knowing it.

Q. If he wants to make a study of it, and he studies it, he has a

good opportunity to inform himself?

A. Every opportunity in the world, because under normal conditions you know your local train is on there to handle less than carload freight, and short loads, and normally there should not be any interstate freight on it, unless your local is scheduled to cross the state line. When I was in Arkansas I had no trains that crossed the

Q. No local trains, you mean?

A. No local trains that crossed the line. In fact, I had no trains that crossed the line.

Q. You send trains to Memphis, don't you, that cross the line? A. My junction was Bald Knob.

Q. It takes both origin and destination, to know whether freight is state or interstate, does it not?

A. Yes, sir.

Q. You would have to have something more than the conductor's reports, wouldn't you?

A. Not necessarily.

Q. I am not speaking of necessarily, but I am speaking of usually.

A. I say no, sir.

Q. Where would you get the information as to the origin?
A. For instance—Well, I would not always get it.
Q. I suppose not. 4205

A. But I would know the car was destined to a point in Louisiana and in moving in Arkansas it must necessarily be interstate freight. Or if it was billed to Missouri or billed to Texas or billed to Kansas, if I handled it at all on my Arkansas Division I would know it was not state freight, because it crosses the state line. Of course, I would not know whether that car originated in Missouri or in Arkansas.

Q. You take a car destined to a point in Arkansas that would come on your division at Little Rock, and you would not know whether that was state or interstate, would you?

A. Not unless I looked at the waybill.

Q. It was not your business to look at the way-bill, was it?

A. No, sir, that was not a specified duty of mine.
Q. This sheet No. 1 that you have been testifying about, in Exhibit 52, is that made up from the wheel reports?

A. I don't know. My opinion, from the fact that it was compiled in St. Louis, is that it was made up from the wheel reports.

Q. Would this give the order of the cars in the trains?

A. Yes, sir.

Q. Would the wheel reports give the order of the cars in the train? A. As a rule it does. There is an exception. On local trains, it does not.

4206 Q. But as a rule the wheel report does give the order in which the cars are set in the train?

A. Yes, sir.

Mr. MOORE:

Q. Do you mean on both classes of trains or only one class? A. On the through trains.

Mr. HILL:

Q. You assume this was made from the wheel report and that the wheel reports give the order of the cars in the train, when you made your answers to Mr. Moore's questions about it?

A. Yes, sir.

Redirect examination.

By Mr. MOORE:

Q. Mr. Cannon, Judge Hill asked you if you had seen statistics here in regard to the percentages of state and interstate freight cars on local trains: I want you to state if you have seen or if you have been informed as to the result of any statistics as to the percents or proportions—

Mr. Hill: Excuse me, Mr. Moore, but I asked him if he had prepared any statistics.

Mr. MOORE:

Q. Have you seen or been informed of the result of any statistics in this case whatever, showing the proportion of state and interstate freight hauled on local trains?

A. No, sir, not in this case nor have I noticed them in recent years

at all. I haven't had time.

4207 Q. Your opinion is based on your observation?

A. Absolutely my own personal observation from going over the road.

Mr. Hill: You misunderstood me. I asked him if he had prepared statistics or was answering from personal observation and he answered it was from personal observation.

Mr. MOORE:

Q. Counsel asked you if you knew the sources from which this sheet one of Exhibit 52 was compiled and if the wheel report would show the order of the cars in the trains; independent of any knowledge or impression you may have as to how this consist was made up, I want you to state what the rules and what the instructions are, if any, which have been issued in regard to making up trains at these terminal stations in reference to the order in which the cars that are to go through from one terminal point to another, or to go through from a terminal station to another state on a through train, are to be arranged?

A. A through train starting out of St. Louis is made up of all of the Texas loads switched together; all the Arkansus loads switched together; and all the Louisiana loads switched together. The short loads for points on the first district out of St. Louis are arranged in station order. Those that are set out at Poplar Bluff are put to-

gether.

Now we run what we call train 55 (that is a Texas train) filled out with Arkansas and Louisiana freight. All the Texas loads in that train—as a rule it is a solid Texas train—but if there is not enough tonnage of Texas freight we add on what we call Arkansas and Louisiana cars. There may be five Arkansas cars and five Louisiana cars. They are cut out at Little Rock.

Then we run what we call train No. 75: that is an Arkansas and

Louisiana train and those cars are bunched.

So the train passing through Piedmont receives the minimum amount of switching to cut an engine off and put another one on,

cut out the caboose and put on a caboose, and cut out any "bad orders." Or, if there happens to be a Piedmont load on the rear or on the front end of that train, we cut that out.

The same thing is done at Hoxie and the same thing is done at

Little Rock.

Q. As I understand you, that is the order they attempt to provide for as nearly as they can, always?

A. That is the usual order.

Q. This sheet 1 of Exhibit 52 illustrates the statement made by you as to the manner of making up these through trains?

A. No, sir, there is no destination shown on Sheet 1.

Q. Take sheet two covering October 7, 1907 of Exhibit 53, which is the consist of a train, and state if that illustrates it?

A. (After examining paper.) Yes, sir.

Q. Most of that work is done at the inspection yard at Dupo, isn't it?

4209 A. For the train coming down on the east side, yes. At Lesperance for trains coming down from St. Louis.

Recross-examination.

By Mr. HILL:

Q. Mr. Cannon, I believe you say you class these "pickup" as through trains and pay the wages of through trains to the crews on them?

A. Yes, sir.

Q. Those pick-up trains handle most of the cotton traffic in the state of Arkansas?

A. Yes, sir.

Q. I mean into the compress?

A. Yes, sir.

Q. And how do you handle it after you get it out of the compress?

A. It is made up into through trains at the cotton compress.

Q. The cotton is handled largely on through trains from the time

it starts to moving until it gets out of the state?

A. The biggest portion of the cotton is so handled, yes. Of course, local trains handle all they can.

Q. Local trains handle some cotton, I presume?

A. They handle a great deal of cotton.

Q. But the bulk of it is handled on the pick-up trains, as I understand you?

A. Yes, sir.

4210 Q. You referred to the heavy traffic in October, 1907: I will ask you if in your judgment the ton mileage in October, 1907, was much more than the ton mileage of any other month in that six months period ending December 31, 1907: I mean ton miles of freight. I do not mean the car ton miles as you referred to but with the weight of the cars included. I am getting to the proposition of the handling of freight.

A. You are talking about net tons.

Q. I don't know your term, but I am talking about moving freight miles: that is the idea I have got.

A. I cannot answer that question because I cannot think any net tons. All we figure on in operating a railroad is the gross tonnage. That is what we have to haul with our engines; and that is made up of the car and the load, too.

Q. Your problem is—everything right behind the engine?

A. Yes, sir, everything.

Q. That is what you look at as your factor, to see what you can

have that engine haul?

A. I have got to have that engine pull everything she will haul. It may be loads and it may be empties.

4211 H. V. Brown, a witness of lawful age, being duly produced, sworn and examined on the part of the complainants in rebuttal, testified as follows:

Direct examination

By Mr. MOORE:

Q. State your name?

A. H. V. Brown.

Q. Where do you live and what is your occupation?

A. I live in Little Rock. My present occupation is Assistant Yard Master of the St. Louis Iron Mountain & Southern Railway.

Q. What was your occupation in the Fall of 1907?

A. I was known as Terminal Clerk in the Little Rock terminals, performing the duties usually assigned to a division agent.

Q. Do you know how these consist sheets that have been introduced in evidence here, (Complainants' Exhibit 52) were made up?

A. Those yellow sheets, you mean?

Q. Yes.
A. Those sheets were made up from the inbound train book. The record on the inbound train book is made by what is known as the "desk clerk," from the waybills after being checked against the switch list, in order that he may see that he has a waybill for

each car shown on his switch list.

4212 Q. What is a switch list?

A. A switch list is a list of the trains that is made out and handed into the office by the conductor, showing the initial, the number, the contents, and the destination of each car in his train and as they stand in train order.

Q. The switch list shows the order of the cars in the train?

A. Yes, sir, it shows the order of the cars in the train. Q. And that is handed by the conductor to whom?

A. That is handed by the conductor to what is known as the inbound desk clerk.

Q. I suppose the desk clerk then compares the waybills, which is really the contents of the train, with the switch list for the purpose of seeing that all the cars enumerated in the switch list are covered by waybills-or vice versa. That is to verify and balance the two?

A. His first duty is to check the waybill against the switch list

to see that he has a waybill covering each car shown on the switch

Q. How are the cars usually arranged in these through trains. say train 55, this through redball train, with reference to their destination?

A. Train No. 55 is known as our Texas train and frequently con-

sists of a solid train of through freight.

Q. Is anything done to that train other than what it may require if there are any bad order cars in it, except changing the engine and that sort of thing-is there any switching service rendered to it?

A. If they have sufficient tonnage into the Little Rock terminal and no deductions are to be made from the inbound train, there is nothing done to the train except to change the engines and ca-

boose, providing there are no "bad orders."

Q. Now, come back to the question I asked you before: what, usually, is the order that the cars stand in with reference to their destination, on that class of trains. I speak of Train No. 55 merely to illustrate?

A. The through cars are all en bloc, that is, they are all switched

in one operation of the train.

Q. What is that done for?A. That is done to save switching at the various terminals.

Q. You spoke a while ago about making additions: now I want you to state whether you have any information before the train reaches Little Rock as to what this consist is, and if anything is done with reference to putting other cars on that train: if there is any practice of that sort, describe it?

A. We receive the consist of these trains from a conductor fre-

quently before they get very far out of Hoxie.

Q. How do you get that?

A. We get that by telegraph.
Q. That simply consists of information as to the cars and their destination? Of course, it does not tell what order they are in on the train, I imagine?

A. Yes, sir, it tells the order. It gives all the information that

is given on the switch list outside the initials and car numbers.

Q. What do you do when you get that information?

A. If No. 55 has not sufficient tonnage into Little Rock, as shown by the consist we receive by wire, we arrange sufficient freight to fill it out.

Q. That is all done when the train gets in?

A. When it is possible. It is usually done before the arrival of the train.

Q. It is your effort to do it in that way?

A. Yes, sir.

Q. Mr. Brown, you say the Texas cars, say the cars going through to Texas, are grouped together on this through train, say No. 55, if you should have additions to make to the train in order to fill out its tonnage, will the cars which you say are grouped together, require any switching?

A. That is what we would term "a fill out".

Q. How is that done. Describe that.

A. That would be either set on the hind end of the train after putting on the caboose-

Q. You mean the additional cars?

A. Yes, sir, the additional cars. Or they would be placed on the head end of the train as the inbound engine is re-4215 moved, as conditions will permit. In some instances it is handier to put them on the hind end of the train with the caboose and in other cases the cars might be so located that it would be quicker to put them on the front end of the train.

Q. Would the cars that come in be put on the hind end, or would

they stand there until the train was ready?

A. They would be received and handled off the same track, and wihout any extra handling, barring bad orders; that is those cars

going through to Texas.

Q. It has been suggested in this case that there was a congestion in the yards at Little Rock in October, 1907: did that congestion have any effect in increasing the loading of either through or local trains?

A. It increased the tonnage on the local freights. Our through

freights were carrying full tonnage all the time.

Q. The through freights were carrying full tonnage all the time but it increased the tonnage on the local trains?

A. Yes, sir.

Q. Of what kind of tonnage did this additional freight added to the local trains consist? Was it local freight confined to the state, or was it freight that came from other states?

A. It was some of both. In many instances we would give the locals short loads and also fill them out with through loads,

destined to the next terminal yard.

Q. Which preponderated? Which had the larger proportion, the through or the locals, that were added to the local train?

A. Judge Moore, I could not answer that question. I would not

know how to apportion that.

Q. During that period, October, 1907, what proportion of the tonnage that was carried by the local train would be interstate and what proportion would be state?

Mr. HILL: I think before doing that you should lay some foundation for his competency.

Mr. MOORE:

Q. What did you as yard clerk have to do, if anything, with the handling of those cars, that would give you information on that subject?

A. I handled the waybills every day. I went through the waybills and checked up the local situation in the yard and made reports daily as to the movement of freights in and out of the yard. gave me a pretty good idea as to what we were handling.

Q. That gave you the means of knowing what kind of freights

were handled on the local trains, didn't it?

A. I should say so, yes, sir. I think I was in a position to know as well along those lines as anyone who would be in the terminals, who was not preparing statistics.

Q. I will change my question: I asked you a while ago as to the conditions during this period of congestion. Now leave that 4217 out. But in ordinary times when the movement is

your ordinary and usual movement, what proportion or percent of the freight hauled on local trains would be state freight and what proportion would be interstate freight: just give your idea and your best judgment about that?

A. I think the locals in normal times handle at least 70% of the

state freight; and not to exceed 30% of interstate freight.

- Q. What were the proportions handled during that congested period you spoke of when the additions were made to the local trains?
- A. The proportion of interstate freight was increased considerably on account of the through loads that were being put on the local in order to facilitate the movement of the cars.

Q. What proportion of the freight carried on local trains would be interstate, during the congested period, say October, 1907?

A. I should estimate it was upward of 60%.

- Q. You say you handle all the waybills and that gave you a means of knowing what the freights were that were carried on the trains?
- A. Yes, sir, I checked the waybill every day. That was a part of my duties.

Cross-examination.

By Mr. HILL:

Q. Is much freight passing in and out of Little Rock 4218 from Fort Smith?

A. At the present time?

- Q. No, we are talking about 1907, now. A. From Little Rock to Fort Smith?
- Q. I include Fort Smith and the mines, say the Jenny Lind mine, that passes through Fort Smith?

A. Inbound?

Q. Both ways.
A. Yes, sir, there was a heavy movement both ways and especially coming to us at Little Rock.

Q. Of what did that principally consist?

- A. It consisted of coal, and there was a heavy movement of grain at that time, and there was a heavy movement of cotton from local stations. Of course, the cotton did not come to us from as far west as Fort Smith.
- Q. I am talking about the movement that originated in Arkansas and passed through Fort Smith, like from the Jenny Lind mine, and furniture and manufactured articles from Fort Smith; wasn't there a considerable movement of that kind?

A. Through Fort Smith?

Q. No. from Fort Smith to Little Rock.

A. We did not get much merchandise from Fort Smith. there is always a good movement of coal and it was especially heavy at that time.

Q. October, 1907?

A. Yes, sir.

Q. Coming from the Jenny Lind mine? 4219

A. Coming from mines up there. I am not sufficiently well acquainted with those mines to say whether it was all from the Jenny Lind.

Q. It was coal originating at different points in Arkansas and it

came through Fort Smith to Little Rock?

A. Yes, sir.
Q. There is a great deal of furniture and things of that kind manufactured in Fort Smith that comes through to Little Rock?

A. I do not have any recollection of handling furniture and manufactured products manufactured at Fort Smith.

Q. There is considerable traffic between the two towns?

A. Yes, sir, it is heavy.

Q. Was it especially heavy in 1907?

A. Yes. sir.

Q. And in October, 1907?

A. Yes, sir.

Q. In discussing state and interstate freight here, a few moments ago, how did you treat that traffic from Fort Smith? Was that state or interstate freight?

A. To Fort Smith?

- Q. Yes, to Fort Smith and from Fort Smith to Little Rock. A. That would be treated as state freight, in my estimation.
- Q. You say you saw the waybills in October, 1907, and 4220 from the wavbills you formed an estimate as to the amount of state and interstate freight: was it your business to study from those waybills whether the freight was state or interstate?

A. No, sir, it was not.

Q. That was just casually before you; it was no part of your business to study out that problem at all, was it?

A. No, sir.

Q. What use did you make of those waybills? What was your

business with them?

A. The yard was in a congested condition and it was my duty to check the waybills each day to see the condition of the old loads-principally to keep a check on the old loads and so far as possible remove the oldest loads in the yard. Also to check the waybills and see that we had a car for each waybill in the yard, and the location of that car.

Q. It did not make any difference, so far as your duties were con-

cerned, whether that was state or interstate freight?

A. None whatever.

Q. Your attention was not called to whether it was state or interstate?

A. No. sir.

Q. It was simply a question of what car should go out and how it checked up with the reports you had?

A. Yes, sir.

4221 Q. You saw the waybills on only four locals, did you

A. That is all the locals we had out of there, a local each way. Q. That was the extent of your observation of the waybills on

the local trains running in Arkansas in October, 1907?

A. Yes, sir.

Q. How would you determine from a waybill whether the freight covered by it was state or interstate freight?

A. By the destination or by the point of origin.

- Q. You would have to have it before you, you have both.

 A. Yes, sir. If you have a waybill before you, you have both. You would have to have it before you, would you not?
- Q. You would have to look at both columns, you would have to look at the point of destination and the point of origin, and the consignee and the consignor, in order to determine whether that was state or interstate freight?

A. Yes, sir, but you could determine it was state or interstate,

without having the waybill before you.

Q. How would you do that?

A. For instance, if the consist showed the conductor had so many cars for Texas, we would know it was interstate freight; or if he had so many cars for Louisiana points we would know that was interstate.

Q. Suppose he had so many cars for Pine Bluff?

4222 A. We could not determine that unless we had the point of origin.

Q. It would be the same thing, if the cars came into your yards from St. Louis, or whether they came in from Hoxie destined to Texas, the consist would show the destination: but would it show the origin of either one of those two?

A. The consist does not show the originating point?

Q. You would have to have both, in order to determine whether

it was state or interstate freight.

Was it any of your business to scrutinize these waybills before you could determine the origin and destination of those cars, when you were cleaning up that congestion in the yards?

A. No, sir. No more than if the freight was perishable or "red-ball" it was given special attention.

Q. You would have to look at that on the waybill and get that out first. I presume that is what your duty was?

A. Yes, sir.

Redirect examination.

By Mr. MOORE:

Q. Mr. Brown, did the duties you discharged in connection with the waybills and consists of trains in handling freight and giving directions, give you an opportunity to know about the destination

of the freight and form a judgment about the relation of state and interstate freight to be carried on the local trains?

A. Yes, sir.

Q. You were asked if you did not have to look at both columns in the waybill to determine whether or not the freight was state or interstate: if you say when you picked up a waybill that the freight was billed from a point in Kansas to a point in Missouri or Oklahoma, the fact that it was there in Arkansas would show that it came from another state: you would not have to look at another column to see that it was interstate freight, would you?

A. No, sir. You might look at either the point of origin or the

point of destination to see whether or not it was interstate.

Q. If it was destined to a point in Texas you would know it was interstate freight?

A. Yes, sir.

Q. Coal is the principal traffic to Little Rock from Fort Smith— I mean traffic that originates there in the state of Arkansas?

A. Yes, sir, we have more tonnage in coal than anything else.
Q. Is it largely in excess of other tonnage? I mean tonnage that originates in Arkansas and comes by way of Fort Smith to Little Rock?

A. I would judge it is, Mr. Moore.

4224 W. L. Seelig, a witness of lawful age, being duly produced, sworn and examined on the part of the complainants in rebuttal testified as follows:

Direct examination.

By Mr. Moore:

Q. Please state your name, residence and occupation?

A. W. L. Seelig; St. Louis, Missouri; Auditor of the Missouri, Kansas & Texas Railway.

Q. How long have you been with that road as Auditor?

A. Eighteen years.

Q. Do you know Mr. Henry Wilmering?

A. Yes, sir.

Q. Was he employed by that railroad at any time within the last five years?

A. Yes, sir.

Q. Give the dates of his employment and what his duties were?
A. He was employed as Cashier at Cleveland, Oklahoma, from November 8, 1904, to December 21, 1905; and as agent from December 21, 1905, to May 22, 1907.

Q. What were the gross revenues taken in at that office from the

time he began to act as agent there until he ceased to act?

A. Commencing with the business of January, 1906, it was as follows:

Δ	.,,,	
7	220	

4225	Α.	
190		
January	Freight business\$8668	,
	Passenger business	
February	Freight business	
	Passenger business	
March	Freight business 4271	
	Passenger	
April	Freight business 4421	
	Passenger 3801	
May	Freight business	
	Passenger business	
June	Freight business	,
	Passenger business	
July	Freight business	,
•	Passenger business	
August	Freight business	
	Passenger	
September	Freight business	
	Passenger business	
October	Freight business	
	Passenger business	
November	Freight business	
	Passenger	
December	Freight business	
	Passenger	
January	Freight business	
3	Passenger	
February	Freight business	
	Passenger	
March	Freight business	
2/2142 022	Passenger	
April	Freight business	
P	Passenger	
May	Freight business	
2.2.0	Passenger	
	B 1100	

Q. What were Mr. Wilmering's duties as Cashier? A. His duties as cashier would be to handle the cash, make the collections and make an accounting.

Q. He had nothing to do with the operating service?

A. Not while an agent is located at the station. His duties would

be only to handle the cash and keep the accounts.

Q. What was the character and importance of that station as compared to other stations that did the same amount of business?

4226 A. I did not consider that station was of any greater importance than any other station of its size.

Q. It is a small way station?

A. It is so regarded, from the amount of the business done, except during the boom period which was in the fall of 1905.

Q. Was that before he became agent? A. Yes, sir. For a period of about four months they did a very large business. For the month of October, the freight business amounted to \$22,450, and the ticket business did \$3950.

Q. Was that the largest?
A. I think that was the largest.

Q. That was not during the period when Mr. Wilmering was agent?

A. No, sir.

Q. Is there any terminal station or switch engine maintained there?

A. No, sir.

Q. What are the duties of the local agent there?

A. The duties of the local agent at that point would be similar to a small station of its size: he would handle the freight, load and unload, with such assistance as they had at that point.

Q. Was it any more extensive than the duties of any other local agent at a local station doing the same amount of business?

4227 A. No, sir.

Q. Do you know what the population of Cleveland was in

1906 and 1907? A. No, sir, I do not. There was a rush boom in there for four months and that finally disappeared.

Q. That was in 1905?

A. Yes, sir, in the Fall of 1905.

Q. That was a case of men may come and men may go, was it?

A. Yes, sir, it was a wandering element.

Q. Where was the terminal station next to Cleveland?

A. At Osage across the river.

Q. How far away is that from Cleveland?

A. About four miles.

Q. Did the agent at Cleveland have any connection with the business at Osage?

A. No, sir.

Q. Was there an agent at Osage?

A. Yes, sir.

Cross-examination.

By Mr. HILL:

Q. Mr. Seelig, do you know personally the duties of a station agent of such a station as Cleveland?

A. Pretty well.

Q. Have you served in that capacity yourself?

A. No, sir.

Q. You never graduated out of a station?

4228 A. No, sir.

Q. What did you graduate out of, Mr. Seelig?

A. Practically I have had experience in the operating department to some extent, and in the purchasing department, but principally in the accounting department.

Q. You did not become Auditor in a day, I imagine? A. No, sir.

Q. You have had a good deal of subordinate experience before you attained that exalted rank?

A. Yes, sir.
Q. Did you not find your experience in the various subordinate capacities in which you served had been of some use to you as Auditor of the M. K. & T. Railway?

A. Yes, sir.

Q. You would not be Auditor unless you had had those experiences, would you, Mr. Seelig?

A. No, sir.

4229

Q. What do those figures you have just put in represent, about the business of Cleveland? Is that inbound and outbound, both?

A. No, sir, that represents the inbound. I did not take into consideration the outbound. It was practically all inbound business, There is no opportunity for outbound business there.

Q. They did not ship anything out of that country?
A. In considering the amount of business at a station we consider only the inbound business.

Q. The agent considers the outbound business, does he not? A. The agent would consider the outbound as a part of the business of the station.

Q. You have given just half the story as represented in your figures, I presume?

A. No, sir, I have given the business of the station.

Q. I understand, but as I understand your statement of it, that represents only about one-half of it-I mean just one side of the story, not half in the sense of an equal division of the business: But the agent has to attend to both classes of business, is the point I am making.

A. Yes, the agent has to attend to both classes of business.

Redirect examination.

By Mr. MOORE:

Q. Mr. Seelig, will you prepare a statement of the outbound business of Cleveland for a period of corresponding months covered by

your statement already filed?

A. Yes, sir, I will try to do that. It is pretty far back, but if we still have the records I shall be glad to do it. I will do it as to the freight business. The statement given includes all the passenger business.

4230 Frank Nay, recalled, testified as follows:

Direct examination:

By Col. MOORE:

Q. You have testified in this case before, I believe?

A. Yes, sir.

Q. I believe you have testified that you are Comptroller of the Chicago, Rock Island & Pacific Railroad Company?

A. Yes, sir.

Q. I think you stated your experience in the railroad work when you were on the stand before: I will ask you now, however, if as a part of your duty as a railroad accountant you have had occasion to make any study of operative conditions on railroads?

A. Yes, sir, to a considerable extent. I think the work of

accountant official is always improved if he becomes familiar 4231 with operating conditions, and in that way is enabled to understand the results as they are reflected in the reports that come to him. And I have made it my duty, just as far as possible, to get on the line at every opportunity and study the actual operating conditions just as much as it was possible for me to do so.

Q. You have done that from actual observation out on the line,

have you?

A. Yes, sir. Q. Mr. Ludlam, a witness for the state in this case, testified that an accounting official for a railroad was better qualified to apportion and allocate expenses for repairs and matters of that sort, growing out of railroad operation, than an operating man: I wish you would

state your views on that subject, if you please?

A. My views would be that an accounting official, unless he has had actual experience and up to date experience in operating matters, would not be as competent to decide as to the allocation of certain expenses as an operating man. What I mean by that is, would not be competent to decide from his own knowledge. It would be necessary for the accounting officer, to make proper decision, in any allocation of expenses, to consult with the operating officials and ascertain the actual operating conditions gov-

And the operating official who is by his 4232 erning expenses. daily work in constant contact with the local conditions is better able to determine how these expenses should be allocated than any other official of the railroad, in my judgment. It has been my practice in accounting matter, wherever a question arose as to the allocation of an expense, to obtain complete information from the local official in charge of the work before determining how the expense should be charged.

Q. Do you regard that information as primary facts which it is essential to have knowledge of in order to be able to allocate and

compile the expense of operation?

A. Yes, sir.

Q. I suppose the experience of an operating man qualifies him better, and fits him better to determine about the proper allocation of expenses of that class than the experience of a simple account-

ing man?

A. Yes, sir, and that is true for another reason: conditions may change and an accounting man who has had experience in past years might, if he attempted to allocate expenses without consulting an operating man, base it upon conditions which existed some years ago than which do not exist now.

Q. If an accountant is going to divide any class of operating ex-

penses between different classes of trains, say between local 4233 and through trains, it would be necessary, as I understand you if he did not possess the information himself, to obtain the information from operating officials to enable him to determine

the cost and expense as between the two classes of service?

A. Yes, sir, that is true when it is necessary to make an estimate or approximation. That is to say, if you were going to divide the expense between local and through trains, the accounting official could, without consulting the operating official, determine certain expenses. He could determine the wages of the train crews on each train; and he could determine the coal used on each train, and perhaps some other supplies. To that extent—that is, to the extent where the actual cost can be definitely ascertained, it would not be necessary to consult the operating officer. But where any expense was involved that could not be actually and definitely assigned to either service, then in order to produce a fair result, it would be necessary, in my judgment, to consult freely with the operating officials who had knowledge of the local conditions.

Q. And in that I suppose you would include the expense of main-

tenance of cars, locomotives and things of that character?

A. Yes, sir, every expense except those few items I have mentioned, which can be definitely assigned to either one or other service.

Q. Have you examined the exhibits filed in this case by 4234 Mr. Wharton, a witness for the state, which are designated alphabetically from I to N, containing formulas for dividing expenses for freight service between local and through trains; and for passenger service between the classes of cars used in that service; and the results from that method of division?

Q. I wish you would state what your views are in regard to the practicability of dividing the expense of the transportation of freight by first separating it as between local and through trains in the manner that is attempted in Exhibit K filed by Mr. Wharton?

A. My opinion is that it does not reflect true conditions or true

relative cost of the two kinds of service.

I have read the testimony regarding these exhibits, and as I recall it, the opening statement was that they would present actual facts as opposed to theories.

After examining these exhibits carefully, I am unable to find any results—that is, any assignment of expense between local and through, or between state and interstate that is an actual fact.

Q. Or based on actual facts you said?

A. Or based on actual facts.

The method subdivides the total operative expenses into various

subdivisions, and treats of each subdivision separately.

The expenses that are grouped in these subdivisions are divided on various bases, many of which have little or no relation to the expenses that are subdivided thereon. The method is complicated, and is capable of being adjusted or manipulated-I am not using the word manipulated in an offensive sensebut it is capable of being changed or adjusted in different ways throughout the details, that might bring entirely different results in different cases. The attempt is sought to divide what are termed train expenses between local and through, and those which are not train expenses between state and interstate. And then after the total local and through train expenses are ascertained, by a series of approximations, without any actual results being obtained, or without being based on any actual results being obtained, or without being based on any actual results, the entire expense of those trains is then apportioned between state and interstate on a ton mile basis which is another approximation of this summary of approximations. It might or might not produce a fair result. If it did produce a fair result I think it would be a coincidence or an accident.

Q. What do you think of the practicability, in the first place, of making the division of expenses as between through and local trains in the manner that is attempted in the state accountants in that exhibit? What I mean to ask you is, do you think it possible to make a fair division on any such basis as that, by dividing it into the separate elements of train cost, and in that way separating and dividing it between the local and through trains in your in-

vestigation of that exhibit?

4236 A. I think it is not possible to make such a separation with any degree of accuracy, except perhaps in one way:

There is a principle of accounting which is used by expert accountants in connection with manufacturing and mercantile business, which provides that indirect expenses shall be apportioned on the basis of the direct expenses of any class of service. It would be possible to obtain the direct expenses of through and local trains in the event such a separation was attempted, which would be the expenses I have heretofore referred to, namely, the wages of the train man, the fuel and other supplies of the train; and having obtained those direct expenses, then divide the indirect expenses on the basis of the direct expenses.

That is a method of accounting which is approved in mercantile lines of business, and if I should attempt to make a division of that kind, an arbitrary division, which it would be, I think that would be

a fair basis for dividing between local and through.

Q. Do you think such a basis as that could be used and be as satisfactory and fair, for apportioning the expenses for conducting state and interstate traffic on a railroad?

A. No, sir, I don't see how it helps very much, because state and interstate freight are hauled on both kinds of trains, local and through, so if you have gone to the trouble of separating

the expense between local and through you still have left the problem of separating the expense of each class of trains between state and interstate, which is the same problem with which you are confronted, before you have made that division.

Q. To take the matter up somewhat in detail, I want first to call your attention to the scheme which is presented in this Exhibit I for ascertaining the relative tonnage on the two classes of trains, that

is, local and through trains. You are familiar with the method adopted by them for that purpose, are you for that purpose?

A. Yes, sir.

Q. Please state what you understand it to be?

A. My understanding of the method used by the state's witnesses in ascertaining the state and interstate business one mile on local

and through trains is as follows:

They took the conductor's reports, commonly known as "wheel reports" of all the local trains that were run during the month of October, 1907, and drew from those wheel reports the numbers of the loaded cars. They then traced from those car numbers the way-bills covering as many as they could find. I understand they were unable to find all of the waybills covering those cars. After locating the waybills, the separation was then made between state and interstate shipments, and the tons one mile, state and interstate, were computed for carload freight only.

I understand that all of the less than carload freight was con-4238 sidered to be state business; that is, less than carload freight

that was hauled on local trains.

Having obtained those results, which purported to show state and interstate tons one mile, transported on local trains in October, 1907, they deducted those results from the total tons one mile for October, 1907, state and interstate, as compiled by the Railroad Company.

Q. That compilation is shown in Exhibit 26 filed in this case, is

it not?

A. I am not familiar with the number of the exhibit.

Q. You may assume that it is,

A. Very well. What was left was assumed to be the tons one mile,

state and interstate, that were transported on through trains.

However, the total tons one mile for the month of October, 1907, as computed by the railroad company covered only shipments that were taken into the accounts of the Company in October, 1907, regardless of whether the shipments actually moved over the rails in that month or at some other time.

Q. Mr. Nay, I wish you would state if a correct result can be arrived at by that method of division as between the tonnage of local

and through trains?

A. I think not-I am sure not.

Q. Give your reasons please?

A. For the reason that the business of the company is not taken into account according to when it actually moves in

the trains, but is taken into account as follows:

System business which covers shipments moving between points on the Missouri Pacific system (including the Iron Mountain) is taken into account on what is known as the (forwarded basis) that is, all system waybills dated in the month of October, 1907, were taken into account for that month regardless of whether the shipments were actually hauled on the trains in that month or not.

Under that plan system waybills dated during the latter part of October, 1907, and which started to move in October, but finished

their journey in November, 1907, would be taken into account by the company in October for the full journey.

But the state's accountants in compiling the tons one mile from the conductors' wheel reports, would include only that portion of the

journey that actually moved in October.

The same condition prevailed at the beginning of the month. That is to say, the waybills dated during the last few days of September, 1907, which were en route at the end of the month, were taken into account by the company for the full journey in September, 1907; while the state accountants would have in their reports for October the ton miles covering the completion of the journey in

October. The railroad's figures would include nothing what-

4240 ever in October accounts covering such shipments.

Q. One moment, please. Let me see if I understand you: You stated in your last answer that in ascertaining the freight carried on local trains, as shown in these exhibits, the state included only that part of any movement that was billed on the system anywhere, which occurred in the state of Arkansas during the month of October?

A. That is my understanding, yes.

Q. But on the other hand, that the accounts kept by the Auditor, as to what you call "system business"—that is, business which originates anywhere on the system, would be entered on the books on the forwarded basis—and by "forwarded basis" you mean as of the date the shipment was billed, the waybill made?

A. Yes, sir.
Q. The result of that would be, if a shipment was made and billed in Missouri or Nebraska or Oklahoma, in October 1907, it would go in the auditor's account as an October shipment, without regard as to when it passed through the state of Arkansas?

A. Yes, sir, if the wavbill is dated in October.

Q. If a waybill on any part of the system, covering the several states, is dated in August or September, it would go into the auditor's accounts as of August or September as the case might be?

A. Yes, sir.

4241 Q. In case there might have been some delay, it might have passed over the rails in the state of Arkansas in the

A. Yes, sir.

Q. That I understand, is the effect of what you call the "forwarded basis"?

A. Yes, sir.

Q. As I understand the effect of this manner of keeping the auditor's accounts, it would be to include the business billed in Missouri or Nebraska in the latter part of October, which would not reach Arkansas until the early part of November, and exclude business billed in August or September in other states, and which might have passed through Arkansas in the month of October?

A. Yes, sir.

Q. Now you may proceed with your statement, Mr. Nay?

A. The interline business represents business covered by way-

bills reading to or from points on other railroads, and is divided into three classes: Interline forwarded, interline received, and interline

through or overhead.

The interline received business covers waybills made by other railroads reading to stations on the Missouri Pacific system, and is taken into account when such waybills are reported by the agents at destination.

In that way waybills which reach destination during the early part of October which travel part of their journey over the 4242 Iron Mountain in the month of September, would be included in the company's tons one mile, but that portion of their

journey which was travelled in September would be excluded from

the figures compiled by the witnesses for state.

Q. Suppose a shipment which passed through Arkansas in the month of October was received in Texas or Louisiana in November or even in December: on that basis as to what month would it be entered in the auditor's account?

A. It would be entered on the auditor's accounts in either November or December, according to when the shipment reached des-

tination.

Q. Although it may have passed over the lines in Arkansas in October, it would not enter the auditors accounts for that month?

A. No, sir, but the tons one mile, covering the actual movement in Arkansas would be included in the figures compiled by the experts for the state.

Q. You mean that would be included in the figures worked out by the state's witnesses for the purpose of showing the tonnage of local trains in October?

A. Yes, sir.

Q. If it happened to get on a local train in Arkansas?

A. Yes, that is true. And that is true of all shipments I believe, that I spoke of as being included in the state's figures, because they computed local trains only, and deducted the tonnage on the

4243 local trains to arrive at the tonnage on the through trains.

Q. But while, if a car, in which freight was hauled happened to be hauled on a local train, it would be taken into account

by the figures prepared by the state's witnesses for the purpose of showing the tonnage of the local trains, yet it would not be in the auditor's account, and, therefore, would not appear in the total of business from which the tonnage of the local trains was subtracted by the state's witnesses: is that correct?

A. That is right. And, furthermore, if that shipment or any shipment of like character moved part of the distance on through trains across Arkansas, and part of the distance on local trains, the state's witnesses would have entered the figures only for the mileage that actually moved on the local trains, and would omit the mileage

moved on the through trains.

Q. Now you may proceed with your statement, Mr. Nay?

A. The next class of interline business is known as "interline forwarded," covering shipments that are waybilled at stations on the Missouri Pacific system going to points off that line and on some

other railroad. The waybills for such shipments are taken into account by railroads when they are reported by the destination carrier, and the destination carrier reports them when the agent at destination reports the receipt of the shipment to his accounting department.

4244 Q. That may be weeks after it has passed through the

state, may it not?

A. It may be a long time. In actual railroad practice I think every railroad in the country has a large number of waybills of that kind, which are being constantly traced.

The Rock Island has several men tracing waybills that are not reported until some time after the close of the current month.

In case there is a congestion it sometimes happens that such waybills are reported several months after they actually move over the rails of the original carrier.

Q. What effect would a congestion in traffic have in the way of delaying the entry in the books of the auditor in that class of ship-

ment?

A. On all interline business it would serve to increase the delay. The system business being taken up on a forwarded basis, congestion would delay the actual movement. But on interline business, which is taken up by the receiving carrier, when it reaches its destination, any congestion delays the reporting of that business, and, consequently, the taking of it into account.

This interline forwarded business is subject to perhaps the greatest delay of any (except perhaps the third kind of interline busi-

ness which is through or overhead) because the company which originates the business has no control of when it is reported, and usually a large portion of the interline forwarded business of any carrier is not reported until after the close of the month in which it actually moves over the line.

In this case waybills would be taken into account for October, 1907, which covered the actual movement in months prior, say in

September or August, or even in months prior to August.

While those shipments would not actually move in October, they would be omitted from the figures compiled by the state's witnesses,

so far as the movement on local trains is concerned.

Likewise, at the other end of the month a large amount of traffic would actually move in October, which would not be taken into the company's account until a subsequent month; but such shipments, if they moved on local trains, would be included in the figures compiled by the state's witnesses.

The third class of business is the interline through or overhead, covered by the waybills made at stations on other roads, which passes across or over the Missouri Pacific, and has destination on some other road, the Missouri Pacific being the intermediate road.

This business is taken into account on a "received basis": that is, reported by the destination carrier in the same manner as the inter-

line forward business.

Q. You mean by that it is taken into account as of the date it is reported by the agent who receives it at destination?

A. Yes. sir.

Q. That is what you call the received basis?

A. Yes, sir. Of course, that is subject to the same delay in reporting as the interline forwarded, and would cause similar discrepancies between the company's tons one mile and those com-

piled by the state's witnesses.

Q. In view of the conditions you have just described, can a correct division of the amount of freight carried on the two classes of trains for a given length of time, say the month of October, 1907, be obtained in the way the state's witnesses have attempted to obtain it in this case?

A. No, sir, I think not. And the reason is that there is a principle in accounting which prohibits the deduction from any aggre-

gate total something which is not included in that total.

For instance, suppose a man has on hand ten thousand tons of coal (using this for illustration) and some of it being hard coal and some of it soft coal: and he wishes to determine how much there is of each. If he can accurately measure how much of the coal is hard coal, he can by deducting that from the total arrive at the number of tons of soft coal. But he must be able to determine accurately either one or the other factor in order to reach the second one by deduction.

If in the case of the coal the man should decide to take 4247 the sales for a month as the hard coal on hand, and his sales amounted to say five hundred tons; and as a matter of fact, there were one thousand tons of hard coal on hand; he would by deducting from the ten thousand tons on hand originally conclude that there were ninety-five hundred tons of soft coal on hand, while as a matter of fact, there were only nine thousand tons of coal.

On the other hand, if he should deduct fifteen hundred tons of hard coal, if the sales amounted to that much, he would be violating the principles referred to of deducting more tons of hard coal than were there. And that would leave an erroneous result, in either case deducting more or less than the actual number of tons of hard coal, would leave an erroneous result as to the actual number of tons of soft

coal.

In arriving at the actual number of ton miles hauled on the through trains by deducting the tonnage actually hauled on the local trains, from the company's figures, which were compiled without reference to the tons actually hauled, unless it should happen, (and it would be a coincidence or accident) that those tons actually hauled should really agree with the tons taken into account as hauled on the local trains, the result left as to the tons on the through trains, would be erroneous. It is scarcely conceivable that the number of tons actually hauled on the local trains in October, 1907, would be the

same as the number of tons that were taken into account in 1907 some of which was actually hauled prior to October, 1907, and some of which was hauled subsequent to October, 31

1907, should be the same.

I might add, that in my experience on the Rock Island, we ran

across this descrepancy several years ago in compiling operating statistics for our superintendents and general superintendents and operating men. We found that the so-called "lap-overs" from month to month did not equal each other—in fact, they were entirely different; and were so very different as to distort our monthly averages.

Beginning with March, 1906, the Rock Island has been computing the tons one mile, used in connection with operating statistics for our operating men, from the conductor's wheel reports, thereby o'taining the tons actually hauled during the month over each division; because we were unable to obtain the tons actually hauled, from the waybill figures.

We have made comparisons each month of the total tonnage one mile, ascertained from the conductor's wheel reports, and from the total tons one mile as compiled from the way-bills, and they are quite different from month to month. I think they will average a differ-

ence of ten per cent or more.

Q. From your experience in the effort you made on the Rock Island, do you think that the inequalities and defects in this system would not be remedied by being evened up, or through any uniformity in the "lap-overs."

A. No, sir, and certainly not for one month. The lap-overs for one year when compared with the business for a whole year, have only one-twelfth of the effect they would have on

the business for one month.

Of course it is evident to anyone that the lap-overs at the beginning of the year will be the same as the lap-over for the first month of a year; and what I am trying to say is, that the effect of the lap-overs when applied to the business of any one month, is very much greater than if applied to the business of a long period—say a year.

That was the difficulty we had in our operating monthly statistics. In one month the tonnage that was omitted from our way-bill account, made the divisor into the expenses so small that the cost per ton mile was largely increased. Then the next month we would have tons in our account in excess of what was handled, and the reverse would be true—the expense would run a way down.

As those figures are used almost entirely for comparative purposes, the comparisons were destroyed on account of these lap-overs being so

unequal

Q. And you found it so impracticable that you abandoned it did

you?

A. We abandoned it for our monthly operative statistics by divisions, and ever since have been making those compilations, based on the tons actually hauled in the trains.

Q. What would you say as to the month of October as compared with other months, as to its effect upon lap-overs, considering the character of the business done in Arkansas in that month,

and any changes made in the character of the commodities at that time from that which might have prevailed in the preceding month.

Mr. Kirby: That would necessarily be a guess on his part if he is testifying as to the Iron Mountain road.

Col. MOORE:

Q. You are familiar, are you not, Mr. Nay, with traffic conditions in the state of Arkansas?

A. I am familiar with those on the Rock Island, and presume in that period there was a similar condition on the Iron Mountain.

Q. As a matter of fact, are not the general conditions the same throughout the state, as to the character of the traffic being affected

by the change from the summer to the autumn business?

A. Yes, sir, I think that is true. I spent about fifteen years on the Cotton Belt, and that was true on that road. And I know that on the Rock Island road the October business is usually the heaviest of the entire twelve months.

Q. What effect would those conditions have upon the figures of

the lap-overs you speak of?

A. October being the heaviest month, there would be a greater congestion during that month, which would tend to emphasize these lap-overs.

Q. The state's accountants have taken, as you will see from an examination of their method, the month of October, as representing all of a period of six months, covering from July to December inclusive; what do you think of that month as being a representative month for the purpose for which it is used by

the state's accountants in the exhibits referred to?

A. I should say that no month is representative of any six months, or of any twelve months, and, certainly, if I would choose a representative month. I would not choose the heaviest month in the year.

An average month might be more nearly representative than either the heaviest or the lightest month, but I think where actual results are desired, no one month should be taken as representing a period.

Q. I want to call your attention somewhat in detail to the divisions

that are made in Exhibit K.

The first item that is taken up there is "Maintenance of way and structures expenses" which is divided in this exhibit between local and through trains on the basis of the total engine miles and car miles of each class during the month of October (which it is stated in the exhibit is regarded as representative of the business of the six months ending December 31, 1907):

Now you have already discussed in a general way your views as to the incorrectness of any month, and of that month of October in particular, being considered as representative of a period; have you anything further to say in this connection, as to making this

division of expenses on that or any other basis, as set out in

4252 this exhibit?

A. You mean as regards the month of October?

Q. Yes.
A. I don't know that I have.

I still feel that that same thing applies to maintenance of way and structures as to other expenses—that October is not at all representative, and that no one month should be taken as representative, where we want to obtain accurate results.

Q. When you say "Accurate results" do you mean actual results or true results?

A. I mean true results,

To take October, the heaviest business month of the year, the maintenance that was going on at that time would naturally be of

a kind that would not interfere with traffic.

The railroads usually, and I think good management requires it, do their heaviest maintenance work when the traffic is light, because certain maintenance work, such as rebuilding bridges, ballasting, laying new steel and so forth interferes always to some extent with movement of trains. So I do not think that maintenance expense in the heaviest business month of the year would be correct, because in the first place the expense would not be representative, and in the

second place the car miles would not be representative

4253 Q. I was going to ask you about that:

That item represents \$553,000 of expenses, and it is divided on the basis of the engine and car miles. I want to ask you what you think of that method of division: if it is proper to divide that expense on that basis?

A. No, sir, I don't think it is:

In the first place, I think it is impossible to divide the expense accurately or truly between local and through service; but if such a thing should be attempted I think the car miles is an improper basis of division because a very large part of the expense, perhaps ninety per cent of the total expense, is not directly affected by the car mileage.

A very large part of this expense is due to deterioration and action of the elements, and would have to be incurred whether the car mileage was more or less. And this feature does not take into consideration the density of traffic, which is an important item to be

considered.

The ties must be renewed in the track and the lifetime of a tie is eight, nine or ten years, some shorter, and some longer, regardless of whether your traffic is heavy or light.

Repairs to buildings, fences, telegraph lines, shops, fuel stations, water stations, round houses; sub-structures, of bridges, ditching, surfacing, aligning, and all that sort of thing, a very large

4254 proportion of the expense has no relation to mileage.

Mr. KIRBY:

Q. Is not all you have mentioned, or a large part thereof, more properly chargeable to deterioration or replacing equipment? Don't you charge off so much every year for replacement or for deterioration?

A. No, sir. Under the rules of the Interstate Commerce Commission we make a charge after replacement is made.

A new tie that is renewed today, that has been worn out by traffic passing over it during the last eight or nine years, but the expense goes into the expenses of October, 1910.

The same thing is true of the expense of the rails which have been worn out in the course of five, ten, fifteen, twenty or sometimes thirty years, according to the density of traffic. newal of the rail is charged to maintenance at the time the renewal is made, although it was worn out in prior years.

Col. MOORE:

Q. So the damage that makes that part of the maintenance and structures expense that is affected by the operation of trains, may have occurred years before the expense was incurred?

A. Yes, sir.

Q. The state, for the purpose of getting a basis for separating the expenses of freight and passenger business, accepted the basis used by the railroad for dividing maintenance of way and structures expense, which is on a train mile basis I think; is that correct?

A. Yes, sir.

4255

Q. If one were going to attempt to divide these expenses in this way between passenger and freight service and between local and through trains, is it consistent to adopt one basis for one purpose, and another basis for the other purpose, as they have done?

A. No, sir, I think either the train mile basis should be used in both cases, if such a division is attempted, or the car mile basis should

be used in both cases.

- Q. Have you studied these exhibits enough to have an opinion as to whether the train mile basis or the car mile basis would produce the better results for the interests of the state in this proceeding?
- A. You mean dividing the expense between local and through? Q. What effect would a division of these expenses between local and through trains, on a train mile basis, have upon the proportionate expense of the two classes of trains?

A. The train mileage would throw considerably more expense to the local, than the car mileage; because the local trains have fewer

cars than the through trains.

Exhibit I shows that the average number of cars per train is 16.1 for the local trains, and for the through trains 32.2 cars; exactly twice the number of cars in the through trains as in the local trains.

for that reason the train mileage basis would assign a much 4256greater proportion of expense to the local business than the

car mileage basis.

Q. So one basis (that is the car mileage) would produce one result; and the other basis (that is the train mileage) would produce another and a different result?

A. Yes, sir.

Q. If it were proper to make a division of this expense between the local and the through trains, could it be done correctly without regard to the weight of the cars and of contents? In other words, to the extent that maintenance of way is affected by operation is the effect not greater or less as the car is heavily or lightly loaded?

A. I think it is greater in the case of cars that are more heavily

loaded.

That is illustrated from the fact that frequently it is necessary to strengthen bridges and put in heavier rail, and do a lot of work to strengthen the track, in order to take care of heavier equipment. The track might be all right for light loading and light equipment, but when heavier equipment is put on, a general strengthening must take place, which proves that the heavier equipment causes more repairs than the lighter equipment.

Q. Would a division which disregards the weight of the equip-

ment be correct?

A. No, sir, I don't think it would be fair.

Q. I am referring, of course, to that part of the operation 4257

which produces this expense?

A. Yes, sir, I understand; that small percentage which is affected by car mileage?

Q. Yes, that is what I am referring to.

A. No, sir, I think if an attempt was made to divide that between local and through trains, certainly the weight of the equipment should be considered.

Q. Would the same be true if you attempted to divide it on a car

mile basis?

A. Yes, sir. Q. The state's accountants have added fifty per cent to the engine mileage of local trains for station switching, in making their division; and are assuming that each engine mile was the equivalent of two and one-half car miles:

Do you know of any reason why fifty per cent should have been

adopted there?

A. No, sir. I think that is an arbitrary percentage, and I do not

know whether that is enough or too much.

Q. Is there any way you know of by which that could be determined?

A. None that I know of.

Q. Would the extra mileage, or the extra expense on that account be likely to be uniform from day to day and week to week, and so on?

A. You mean growing out of this fifty per cent?

Q. Yes? A. No, sir, it would not be the same, from day to day, be-4258cause I have known local trains on one day to be delayed by switching at stations until they were ten or twelve hours late, and the next day they would go through practically on time, doing much less switching.

Q. Isn't that condition affected also by conditions of congestion, and by the character of the traffic that is hauled at different seasons

of the year?

A. Yes, sir.
Q. In your judgment, can any such assumption as that be estab-

lished on the basis of experience in railroad operation?

A. I don't think so, and especially for the reason that only a small percentage—I have estimated it at ten per cent—of the maintenance of way expenses are due to the wear and tear of the cars and engine over the tracks. And the relative wear and tear in switching service as compared with road service is a thing that cannot be determined.

So I think it would be very difficult, if not impossible, to obtain

a percentage that would represent the true conditions. Q. They have also assumed that each engine mile is equivalent to two and one-half car miles: what have you to say as to that assumption?

A. I judge that is based on an engine having twenty wheels while a freight car has eight wheels. If that is the basis, I think

4259that is wrong, because very few engines have twenty wheelsonly a very small portion of them. But as the engine is so much heavier than a car, if I were attempting to make a division between local and through, I think I should make that proportion much larger than two and a half-not because of the number of wheels, but because the engine is so much heavier than any car.

Q. Referring to the allowance of fifty per cent for station switching in this connection, do you think it would be proper to charge as large a proportion of it to interstate business, that is, business coming into and going out of the state from another state, as you would charge to intrastate business?

A. No, sir, I would not. That is to say, I think a greater portion of that charge if we could ascertain what that is, should go to state business than to intrastate.

Q. Why do you think that is true?

A. Because that extra switching with regard to state business must be done at each end of the shipment; that is, at the point it starts, There would be two services of that kind and at the point it stops. for each state shipment, and only one service in Arkansas for each By "interstate shipment" I mean into and out interstate shipment. of the state and not trans-state.

Then, again, as the average haul for state shipments is less than for interstate shipments, this excess of cost switching at stations would be still further emphasized to the extent of that difference in

the length of the haul.

4260 Q. Some of the state business originates at terminals and is switched by yard engines: you do not mean what you have

said to apply to that, do you?

A. No, sir, but I am assuming there is a corresponding amount of interstate business which originates and terminates at terminal points, and is handled by yard engines.

Q. That wo A. Yes, sir. That would offset that?

Q. Does not a larger proportion of interstate freight run through to the end of the train run, than state freight? That is, isn't there more intermediate handling between the beginning and the end of a run on state freight than on interstate; and does not that cause more switching?

A. That would be my judgment, for the reason that the average

haul is less.

Mr. KIRBY:

Q. Do you mean local or through?

Col. MOORE:

Q. That is more largely true of local than of through, is it not?

A. Which do you mean Judge?

Q. The proportion of state and interstate freight which runs through to the end of the train run: what would be your idea about that?

A. I don't know that I quite understand that question.

Q. Mr. Kirby suggests that local and through trains both carry both kinds of freight; and he asks if your answer that the larger proportion of interstate shipments go to the end of the train run is true of both classes of trains, or only of the local trains?

A. I think there would be more interstate shipments running through from one divisional terminal to the other on the

through trains than on the local trains.

The local trains pick up interstate shipments and haul them to terminals, where they are put into through trains. They also take interstate shipments from terminal points and distribute them to the

various stations.

Q. Under the head of "Maintenance of Equipment" Exhibit K divides the expense of maintenance of locomotives between yard locomotives and local and through road locomotives on the basis of the locomotive mileage of each class. Then they add fifty per cent to the mileage made by the yard locomotives to provide for the possible extra maintenance due to yard service:

Do you know of any basis upon which that fifty per cent additional

can be accounted for?

A. No, sir.

Q. Have you any reason to suppose it is correct?

A. No, sir. I have never made any investigation as to the amount

of extra repairs due to yard service.

Q. This is an addition of fifty per cent mileage to provide for possible extra maintenance expense due to yard service. The accountant, Mr. Wharton, who filed this, stated it was an arbitrary assumption; that they have no information or no means of obtaining any information.

What do you think about that method of proceeding to

4262 make such a division of this class of expenses?

A. Making an arbitrary assumption, without anything to base it on, might or might not lead to true results, and is more apt not to, I should think.

Q. Are there any actual facts, or facts you know of, which would

call for that allowance, in railroad operation?

A. No facts I know of.

Q. Then they add fifty per cent to the mileage of road locomotives in local service, to provide for possible switching mileage; and again fifty per cent of the switching mileage of the local train engines thus obtained, to provide for possible extra maintenance for switching service:

Do you know of any actual facts that would justify or account for

that allowance?

A. No, sir, that is arbitrary.

I assume that fifty per cent is similar to the fifty per cent under maintenance and way, to cover the extra switching; and then they add fifty per cent to that fifty per cent which is allowed for extra switching.

I don't know why that should be done.

Q. Something above \$69,000 of this charge is divided between local and through service on the basis of the number of cars of each class handled by yard engines during the month. They assume that every car that comes into the terminal, and every car that goes out of the terminal is handled in coming in and going out: is that a

fair basis of division of that part of the expense of maintain-

4263 ing locomotives?

A. No, sir, I don't think so.

Of course, in the first place this expense of \$69,135.80 is arrived at on the arbitrary basis that has been referred to—the basis of locomotive mileage with those additions. But dividing that on the basis of the cars in and out, between local and through, would mean that the same service by the engine was performed in connection with every car; while a large number of the cars handled in the through trains would receive no service whatever from the yard locomotives.

I refer to those cars that go on through the terminal and have not destination at the terminal. They simply stand there until additional cars are set on, and then there will be a caboose put on the end and the engine in front, and they will go on straight through without

receiving any switching from the yard locomotive.

These cars, under this basis, are treated just the same as the cars that have destination at the terminal point and which may be switched two, three or four miles to some industry. In my judg-

ment, that method of treating all cars alike is erroneous.

Q. Would it be possible, Mr. Nay, to divide this class of expense growing out of repairs to yard locomotives, between the cars, the switching of which causes the necessity for the repairs, unless you could get every car, and keep account of every car that was switched,

and the degree and amount switching that was done for that 4264 car, and divide it in that way; is there any other way in which there could be an approximation to a correct division of that

item?

A. I don't know of any other way.

Q. Would it be practicable or possible to obtain such data or divis-

ion to enable a division to be made in that way?

A. It might be possible, but I don't think it would be practicable. It would require a clerk with every switching crew, and then some more clerks to compile their results with blank forms, which would add a great deal to the expense, and make it impracticable. And even then, if you followed that plan, by keeping an actual account of the cars that were actually handled by each switching engine, its would have to run over a period, because the repairs to the engines are similar to the renewal of rails we spoke of—the engine goes into the shops for general repairs, and receives renewals and repairs, costing a considerable sum of money, say from twelve hundred to two thousand or three thousand dollars, and those general repairs

were made necessary by service covering a period of months, since

the engine was in the shops for general repairs.

It is impossible to determine the wear and tear that occurs each day, even if you know the actual number of cars switched each day, and the service for each car.

Q. Anyway, it would be impossible to make any such division with any approximation to correctness, without keeping such accounts,

and having such information, would it not?

4265 A. Yes, sir.

Q. The expense of maintenance of freight cars is nearly \$478,000: this expense is divided between starting and stopping trains at way stations, repairs due to terminal handling of cars in local service; and the remaining expense is charged in a lump.

Now, in ascertaining the amount that should be charged to starting and stopping, the work written by Λ , M. Wellington in 1887 is followed: Mr. Wellington assumed that 21.5 of repair expenses for

freight cars was due to starting and stopping:

Do you know whether any changes in the construction of freight cars have been made since the time that book was written, which

would affect these relative expenses?

A. Yes, sir. The addition of the air brake I am sure would cause quite a change in those expenses. That is to say, in 1877 when a train was stopped it was stopped by the use of hand brakes. The brakeman would climb on top of the cars and set the brakes on one car and then on to the next, and the stop was bound to be gradual, under those conditions. While today, with the use of air brakes, stops are frequently made with great suddenness, such as to cause considerably more damage by stopping than in the days when hand brakes only were used.

Q. You think that per cent would be increased?

A. If it was 21.5 per cent in 1877 I am sure it ought to be much

greater now.

4266 Q. They have divided the expense of terminal handling of cars on a car mileage basis: is there any reason why a different basis should be adopted for dividing that expense than was adopted for dividing the expense of yard locomotives, which was

divided on the basis of the number of cars?

A. I should think if I were making a division of that kind I would be consistent, and would use the same basis for dividing repairs due to terminal handling that would be used in dividing repairs on locomotives. Because I understand the terminal handling is the handling at terminal points where the car is stopped and set out or picked up.

Q. And the damage is inflicted on the car in handling it in that

way at those places?

A. Yes, sir.

Q. What connection has car miles with that?

A. I don't think it has any connection, because the terminal expense is due to the shifting of the car at the terminal point, which would be the same whether the journey of the car was ten miles or one thousand miles.

Q. Its handling in the yards would be purely local?

A. Yes, sir.

Q. Just as much so as the damage to the engine when handling the car at the terminal?

A. Yes, sir.

Q. The state accountants have allowed double handling in ascertaining the expense of terminal handling of the cars, but they made no such allowance in the case of yard locomotives. Is there any reason for that distinction in your opinion?

You will find yard locomotive expense divided on the basis of double the number of cars handled in each class of service. I don't know, so I am asking you what reason there could be for that differ-

ence?

A'. I don't know. One is based on the cars handled, and the other

on the car mile.

As I said before, I don't understand what relation the miles made by the car have to the damage caused by handling it in the terminals. As I see it, the car mileage has no relation, and, therefore, doubling the car mileage of local trains does not help the matter any. And if doubling the local car mileage and making a percentage of that result and comparing it with the through car mileage is a right basis for dividing repairs to cars caused by terminal handling, then I would think that is the right basis for dividing repairs to engines in terminal service, and, vice versa, if the car handled is the right basis for dividing repairs, then it would be the right basis for dividing repairs, then it would be the right basis for dividing repairs on cars themselves, due to terminal handling.

Q. Is either basis sound, or has it any reason in any operating

conditions you know of?

A. I don't think so.

Q. I want to call your attention to the division of station
4268 expenses under the general head of "transportation expenses"

4268 expenses under the general head of "transportation expenses" that is divided between interstate and intrastate business on the same basis of the number of tons of each class of traffic, assuming that each intrastate ton was handled twice, and each interstate ton handled once. A later exhibit was filed by the state (Exhibit Y) in which they excluded trans-state tonnage from that expense: I will be glad if you will state your views as to the fairness and correctness of that division?

A. The tons that are included in the basis for this division, with the trans-state omitted, includes both carload and less than carload shipments. Practically all carload traffic is loaded and unloaded by the shippers and consignees, so the only item under the head of "station expenses" that refers to carload business is office expense,

the expense of billing, recording and so on.

The large item of station labor, what we call platform labor, loading, unloading and checking, is in connection with the carload busi-

ness. (Should be less than carload. See page 1029.)

Therefore, I do not think it is fair to divide the expense on the basis of the tons handled, including the carload business, because a greater portion of the state tons handled is less than carload business than in connection with the interstate traffic. That being the case, the basis used does not charge a sufficient proportion of this expense to the state traffic, and charges too much to the interstate traffic.

4269 Q. Any basis that ignores the difference between carload and less than a carload could not be fair or correct, could it?

A. No, sir.

Q. The next item to which I want to call your attention is "yard and terminal expenses." These are divided on the basis of the number of cars handled at terminals, in and out; just as was the case in yard locomotives maintenance, since this exhibit is filed a changed and additional exhibit has been filed (Exhibit Y) reducing the cost of through trains twenty-five per cent.

A. That is, making a percentage based on the total local cars with

seventy-five percent of the through cars?
Q. Yes. The plaintiff, St. Louis Iron Mountain & Southern Rail-Q. Yes. The plaintiff, St. Louis Iron Mountain & Southern Railroad, has filed the consist of a through train from St. Louis to Texas covering every day in the month taken by the defendant for that test, being the month of October, 1907; some of those trains were solid trains which required no switching at all; some of them were mixed trains, in which there would be groups of from twelve to fifteen to thirty to forty through cars from St. Louis to points in Texas, which required no switching, possibly there would be other cars attached to these trains destined to Little Rock, Arkansas, and others to points on the Valley Line and Fort Smith line, which had to be detached and switched at Little Rock or Hoxie. All of those cars required switching.

All the cars and all the trains are charged with the same 4270 proportion of the expenses in the original exhibit filed; in the later exhibit filed by the state (Exhibit Y) the division is modified by deducting twenty-five percent of the cars carried on the through trains leaving as the cars among which the expense is to be divided all cars hauled on the local trains, and seventy-five percent

of all the cars hauled on the through trains.

I will state further that the evidence shows that different degrees of switching are required by different cars, and that the expense of switching to industries is very much larger than the expense of transferring cars from the main line to other lines:

Will you state what you think of this method of division, for

dividing this class of expenses?

A. I think it is inaccurate for the reasons stated in connection with the repairs to yard locomotives, that it considers that the service given to each car is exactly the same, regardless of whether it may not be touched or handled at all by the switch engine; or whether it may be switched two, three or four miles to an industry.

Of course, that is modified now by the amended exhibit to the extent of considering the service of each car handled in the through train to be only seventy-five percent of the service as compared with the cars handled in the local trains. But still that does not seem to me to be a fair basis, for the reason that so many cars in the ordinary

course of business on any day are handled by the through trains, go right through the terminals where those yard engines are without receiving any service whatever from the

yard engine. Q. Would the allowance of this twenty-five percent cure the unsoundness of their basis, in view of the facts in this case to which I

have called your attention?

A. I don't think so.

Q. Is not what you said in regard to the impracticability of dividing those expenses on the basis of the number of cars handled in connection with terminal handling of freight cars, true also of this charge?

A. Yes. Of course that is further emphasized by the fact that it is based on the figures for one month, and that criticism as stated in the first place, applies all the way through—that the figures for

one month should not be taken as representative of a period.

Q. On this exhibit fuel and locomotive expenses are divided on the basis of a test made on the St. Louis Southwestern Railway (The Cotton Belt) in October, 1908: you have the division before you there, Mr. Nay? A. Yes, sir.

Q. What do you think of the soundness of that method?

A. I don't think much of it. It does not seem to me to be proper at all, to take a test made for only one month, on another railroad, and that month being entirely outside the period under considera-

tion, and apply it to this period of six months ending Decem-

4272 ber 31, 1907.

It is bad enough, I think, to take a period of one month comprised within the six months under consideration here, as applying to the Iron Mountain road. But to take another month nearly a year later, and on another railroad, and use that as a basis, it seems to me is using something that has not the slightest relation to the expenses it is sought to divide.

Q. I also call your attention to the e montn taken as a test in this case is not one of the months in the six months period

here under consideration at all.

A. I have referred to that. It is nearly a year later than the close

of this period.

Q. The statistics filed in these two cases show that the trans-state tonnage of the Cotton Belt road is forty-four percent of the total tonnage in tons, and sixty-five percent in ton miles. On the Iron Mountain the trans-state tonnage is thirty-five percent in tons of the total tons, and thirty-one percent in ton miles.

Now what does that indicate as to the similarity or dissimilarity

of conditions of traffic on those two lines?

A. That indicates that the character of the traffic is quite different on the two lines. That would produce different operating conditions.

Of course, the Cotton Belt has sixty-five percent, which is almost two-thirds of its ton miles, as trans-state business, which would be hauled almost exclusively on through trains, leaving only thirty-five

percent of it, or a little over one-third as interstate and state 4273 business, to be divided between the through and local trains.

While on the Iron Mountain practically only one-half of the ton miles, fifty-one percent is trans-state business; leaving the other half to be divided between the through and local trains.

The character of the tonnage being so different, and the fuel and locomotive expenses and other expenses, especially those like fuel and locomotive expenses, so closely related to the traffic, would very likely be different. And the results obtained on the Cotton Belt in October, 1908 might be entirely different from those obtained on the Iron Mountain in the six months period ending December 31. 1907.

Q. Can it be correctly assumed that the results on one of those lines would be properly representative of the results on the other?

A. I should not think so. Not for any purpose which required

any degree of accuracy at all.

Q. You have a knowledge of the character and equipment of those two roads, in a general way at least?

A. I don't know that I have. Q. Do you know whether there is any difference in the equipment of the two lines or not?

A. You refer to cars and locomotives?

Q. Yes, operating equipment? A. No. sir, I do not.

Q. What effect would dissimilarity in the equipment of 4274 the two lines have on the expenses of the two roads?

A. It would have a marked effect. That is to say, if the Iron Mountain runs larger locomotives, which would be heavier, on its local trains than the Cotton Belt does, it would affect the proportions between the through and local expenses, making them dissimilar.

Q. And those differences would have to be shown and weighed in

determining a proposition of that sort, would they not?

A. Yes. sir.

4275 Direct examination of Frank Nay continued as follows:

By Col. MOORE:

Q. Mr. Nay, the next sub-division to which I call your attention is "engine house expenses": I wish you would examine that item in the division adopted by the State, and express your views in regard to it.

A. In the first place I think it is wrong to divide the expenses for a six months period on the basis of the expenses of the month

of October, 1907.

I think the method of dividing the engine house expenses on the basis of engine miles is wrong, because the engine house expenses are not in proportion to the mileage made by the engines.

I have learned from the testimony in this case that the average run for through and local trains was obtained by dividing the runs at state lines.

I would consider this to be wrong, and that the proper way 4276 to abtain the average local and through runs would be to take the entire run regardless if whether it crossed the state line or not, That would be the proper method of determining the relative runs of local and through engines. And when that was determined on that basis the result would be similar to a result that would be obtained by dividing the engine house expenses on the basis of the engines handled, which I think is the proper basis whenever it is desirable to determine a division of those expenses,

Q. The next item to which I want to call your attention is "Other train expenses", which you will find under "F" on page 6 of

Please turn to that and state what you think of the manner in

which that has been treated.

A. Under the head of "Other train expenses" I understand are included practically all of the casualty account, in fact, all of them except loss and damaged freight, crossing watchmen, flagmen, joint facility accounts, and accounts of that nature.

Q. What do you mean by casualties?
A. I mean injuries to persons, damage to property, stock killed and injured by trains on the right of way. I think that comprises all of the casualty accounts outside of lost and damaged baggage,

which is a passenger account, and loss and damage to freight.

4277 It includes also floods?

A. Yes, sir. And clearing wrecks, too. Q. Proceed with your statement Mr. Nav.

A. The train mileage has little to do with those accounts. The casualties do not occur with regularity; that is, with reference to the train mileage. It would seem that it would be possible to locate the most of those casualties, if an attempt had been made, to the trains, in an endeavor to divide them between local and through trains. But a division on a train mileage basis might, as a matter of coincidence, bring the correct result. I think, however, it would be simply a coincidence. It might bring a result very far from that which would represent the facts. I think a division on a train mileage basis between local and through would not, except it should be a coincidence, bring true results.

Q. Is that expense of such character that it can be distributed through a given period, or a series of months, on any system of

averages-casualty losses, and things of that sort?

A. No, sir, not definitely. Of course from years of experience we learn that the casualties are within certain limits, maximum and minimum, and will run about the same; and railroad officials in them must provide for a certain expenditure of that amount.

Q. I understand that. That is for the purpose of making estimates, and things of that sort. But for the purpose of making a correct division, between local and through trains, such as is sought in this case, can you take any one month and say that it represents the ratio for any six months period?

A. As I have stated before, no one month is representative of a

period. It is not fair to consider any one month as representing

an entire period.

There is another feature about these accounts which represent the erroneous division on a train mileage basis and that is that these accounts represent largely payments that are made during the month of October, 1907, but not the damages or losses or injuries that occurred during that month.

For instance, in the injuries to persons, in ordinary railroad practice of settlement, that would represent in very large part payments for injuries that occurred prior to the month in which the

settlement was made.

And that is true of damage to property and damage to stock on

right-of-way.

I think the charges for clearing wrecks would be practically current because that represents labor performed by the company's own force.

But the fact that these settlements are for business that occurred in prior months emphasizes the erroneous application of 4279 the train mileage of the month of October, in which very

few of the damages probably did occur.

Q. Will you turn to sub-division G on the same page under heading "Loss and damage, freight" and state what you think about the method of dividing that.

A. Almost the same objection applies to that as to the previous

one; with regard to the dates of payment.

Here the State's witnesses have separated the actual payments in one month, October, 1907, which should not be taken as representing the entire period, between state and interstate freight, as I understand it, according to the nature of the shipments, whether they were state or interstate, that sustained these damages or losses.

Those claims that were settled during October 1907 and charged to this account in that month represented damages and losses that occurred very largely prior to that month, and emphasizes the fact that no one month can be taken as representative. The number of interstate settlements made in October might have been largely in cases of the ordinary number settled from month to month; but the reverse might have been true.

I do not think any reliance can be placed on the figures produced under this head, as representative of the conditions that prevailed

during the entire period.

Q. I will call your attention to the item "Total Operating 4280 Expenses" which seems to be an explanation of the method

adopted by the State's accountants.

A. The total operating expenses, or, rather, this heading in the exhibit, simply explains how the total of train cost in the state and interstate have been arrived at.

Under this heading it is proposed to include everything pertaining to the direct cost of moving freight trains, with all expenses

incident to such movement.

The first item under this heading is "Maintenance of Way and Structures" and, as I have already said, a very large proportion of

the expenses under that head do not relate to the direct cost of the movement of freight trains, nor expenses incident to such movement, because perhaps ninety per cent of the maintenance of way and structures expense is due to deterioration and the action of the elements, and is incurred from time to time without regard to the number of trains that are operated over the track.

Furthermore, those expenses under maintenance of way and structures which do have some relation to the movement of trains and cars, are expenses made necessary by the wear and tear, or deterioration for previous periods running back over many years.

The rails are renewed because of the wear and tear that has occurred in past years. In some cases it is thirty years or 4281 more, and in some cases it is only a few years, according to the density of the traffic handled over the rails.

And so with the ties; they are renewed and those that were renewed in October, 1907, were renewed because of the deterioration from the traffic in past years, and not because of the train or car mileage during that month.

Of course when it comes to buildings, sub-structure of bridges, fences, telegraph lines, coaling stations, water tanks, and things of that sort, the expenditure for maintenance of those have nothing to do directly with the movement of trains or cars.

Q. Under the heading "Method of dividing train cost" (Page 7 of this exhibit) the State's accountants have made an application of the sub-divisions preceding that, to the six months' business: look at that, please, and state what you think of the method adopted there.

A. The State has again used the month of October, 1907, but has made a variation under this heading which is applied to a very large amount of money, and instead of using the two percentages for the month of October, 1907 (as in, I think, all of the other accounts) a modified percentage has been used which produces a percentage of twenty-six per cent for local trains, based on ton miles, instead of 28.51 per cent for local trains, which is the October, 1907, percentage.

Q. This 26 per cent you mean is applied to the six months 4282 business?

A. It is applied in a way. That is to say, the State has assumed that exactly the same percentage of state and interstate freight would be handled on local and through trains during the entire six months as during the month of October, 1907. And on that assumption, by applying those percentages to the state and interstate trains one mile for the six months, has arrived at the result that twenty-six per cent of the total tons one mile on local trains is intrastate freight; whereas the test made by the witnesses for the state in the month of October, 1907, showed that 28.57 per cent of the total tons one mile transported on local trains was interstate freight.

This percentage is based on the assumption that the relative proportion of tons one mile, state and interstate on through and local trains, is exactly the same during the six months as during October.

1907; which I think is wrong, because October is the heaviest month of the year for all Southwestern roads; it is the big cotton month and practically all cotton shipments are interstate shipments.

My judgment would be, based on a good many years' experience with Arkansas conditions, that the proportion of intra-state tonnage to interstate tonnage in October would be less than during the entire

six months, or during an entire year, for the reason that there is an excess of interstate tonnage or shipments handled 4283

during that month.

But supposing this percentage were actual, practically all of the objections to the ton mile basis that have been mentioned hereto-fore (and which I do not think it is necessary to repeat now and burden the record) would apply to this division on the ton mile basis.

Q. The accountants for the state have used, you stated a moment ago, the October statistics for the purpose of dividing the expense under all the sub-divisions made by them, which appear on Ex-

hibit J.

For instance, maintenance of way and structures, involving five hundred and fifty-three thousand and odd dollars, have been divided between local and through trains on the basis of the statistics for that month.

The same is true of maintenance of equipment which amounts

to something over seven hundred thousand dollars.

All the way through where they have made a division between local and through trains, that has been the method.

Now the percentages of state and interstate tonnage on those trains, as shown by the October, 1907, statistics, is something over twenty-eight per cent of interstate tonnage on local trains.

In that single instance they have abandoned the methods used by them in all their sub-divisions, as described by you a little while ago, and in this one instance have adopted a new factor, using twenty-six per cent. Is that correct?

A. Yes, sir.
Q. Is such a method as that fair or consistent?

A. I do not think so. That is, I do not think it is fair to use such a method and have it purport to represent true conditions. I was going to call attention to the fact that this same thing applies

to the freight on through trains,

Exhibit I shows the proportion of intrastate freight handled on through trains to be 5.59 per cent. While the percentage used by this method I have described as applied to the division of the through train expenses is 4.96 per cent, a difference of .63 per cent; but when applied to a large amount like \$1.948,689.55 it will make a very substantial difference in the final result.

There is in each class, both local and through trains, state and interstate used in Exhibit K, substantially less than in the October business as shown in Exhibit I. And the result of that is to reduce the proportion assigned to intrastate traffic and increase the proportion assigned to interstate traffic. That is, to reduce it compared with what it would have been if the two October percentages had been applied, as in the other cases.

Q. And it reduces it to the extent of those percentages? A. Yes, sir. 4285

Q. In one case from 28.51 to 26, and in the other case from 5.59 to 4.96?

A. Yes, sir.

Q. And such a change in the method as that would produce a difference in the result of course, as you have just referred to?

Q. After having ascertained, in the manner indicated by what we have gone over, the relative cost of local and through trains, of the freight carried on each kind, the State has undertaken to divide that expense on a ton mile basis ratably between state and interstate freights: I want to know what your views are as to the correctness of that method of ascertaining the relative cost of conducting state and interstate business.

A. I think that the method is erroneous because it makes no distinction between the different kinds of freight, principally car

load and less than car load.

The expense of hauling a given number of tons of car load freight is less than the expense of hauling the same number of tons of less than car load freight the same distance.

That is a distinction which is generally recognized in cost accounting and in the rates that are charged for the service. One reason that the rates are less for car load freight is that

the cost of the service per unit per ton mile is less on car load freight

than on less than car load freight.

The ordinary ton mile basis makes no provision for a difference in the length of the haul. An attempt has been made here to provide in a measure for the difference in the length of the haul by a method of apportioning terminal expenses. I do not think it is adequate, because, as stated in connection with station expenses, they are stated on a ton basis, car loads and less than car loads all thrown together.

The lump expenses are divided on a ton mile basis, regardless of whether the cars contained a heavy load of car load freight or are

lightly loaded with merchandise.

Also regardless of whether the cars are actually handled by the switch engines, or whether they are switched to a great distance.

Also regardless of whether the freight is actually handled by the Company's employees, or by the shipper and consignees.

Those are the principal conditions that make the ton mile basis an erroneous basis for dividing expenses between state and interstate.

Q. Does the difference in the cost of operating local and 4287 through trains contain all the elements of increased cost of handling intrastate over interstate business, or are there other elements outside of those?

A. There are other elements outside of the train cost.
Q. You mentioned a while ago the subject of long and short haul: is the difference between the cost of handling the two classes of freight, state and interstate, correct, even if they were covered by an allowance in the train expense? Or, are there other elements and considerations in that which would have to be considered in determining the exact difference in the cost of handling freight, such as the long and the short haul and the difference in the character of the freight handled, and so on?

A. There are other elements for which allowance should be made. Allowance has not been made for the difference in the long and

the short haul.

No allowance has been made for the difference in the character of freight, such as less than car load freight, high class expensive freight, as compared with low class and less expensive freight to handle.

Q. Take freight such as merchandise, car load and less than car load, hauled on the local trains: I know there is a much larger proportion of the less than car load freight hauled on the local

trains than is hauled on the through trains (I mean

4288 State freight).

Does a division on a straight ton mile basis make proper allowance for that part of the state tonnage which is less than car load? Is it proper to divide that on the same basis that you divide the car load, and put the merchandise, high grade commodities, on the same plane with the lower grade commodities, in dividing those expenses on a ton mile basis, as they have?

A. No, sir, it is not. And the exhibits in this case I think show it is a fact that the greater percentage of the total tons and tons one mile for state business consist of merchandise or less than car load

shipments than for interstate business.

In the case of the tons, my recollection is that the percentage of less than car load intrastate is nearly double the percentage of less

than car load interstate.

Of course the less than car load freight, while it is relatively a small proportion in tons, incurs a large proportion of the expense. That is, a much larger proportion than its proportion in tons, because the less than car load freight is the more expensive freight to handle.

Q. In this connection, Exhibit N, I think shows it cost about 86 per cent more on the ton mile basis to handle state freight than

interstate: I wish you would look at that and see what it is.

Every operating man who has testified in this case has put 4289 the minimum difference at three times as much. It runs

from three times to six times as much for the cost of transporting state freight than interstate. In view of that testimony I wish you would look at that exhibit and state what you think of his method of division.

A. I have made a computation by dividing the state tons one mile into the state operating expenses as shown on Exhibit N, and the same compilation for the interstate tons one mile, and expenses. I find that the result of this exhibit is to show the cost of state business to be 86 per cent more on a ton mile basis than for interstate business.

The average operating expenses per ton mile for state business is 8.2 per cent and for interstate 4.4 per cent, a difference of 3.8

per cent-or 86 per cent.

I heard the testimony of some of these same witnesses in the Missouri Rate case and it was to the effect that the extra cost of state over interstate business on a ton mile basis would vary from ten per cent minimum, to sixty per cent maximum.

Now, this compilation presented here, which is complicated and produces a result which shown 86 per cent increased cost, indicates that the state's witnesses realized that they were mistaken in the Missouri Rate case in putting the extra cost so low. But it is still

below what the railroad operating men testified to.

I made a further computation with regard to the cost on a revenue basis, and found that by dividing the state revenue into the state expenses, and the interstate revenue into the interstate expenses, it produced a result which shows that the state traffic on a revenue basis is less expensive than the interstate traffic.

The average cost to earn one dollar on state traffic (I am referring now to operating expenses) is sixty cents; and the average cost to earn one dollar on interstate traffic, under this method, is sixty-three

cents.

I have listened to the testimony in many rate cases and I have never heard an experienced man testify that it cost less to earn one dollar in state traffic than to earn one dollar in interstate traffic.

Q. Mr. Nav. on page 8 of Exhibit K. under the head of "Miscellaneous Revenue etc" the State's accountants have divided miscellaneous revenue on the basis of the direct earnings, state and inter-Do you think that method of division is proper? Should the state and interstate revenue be divided on that basis? to \$152.814.41.

I do not know that your attention has been called to that, but in order to refresh your memory I will state that some testimony has been introduced about it. The railroads do not attempt to divide it and their accountants have testified it cannot be divided on that

I want to get your views about that,

4291 Very frequently we have had that question up. think one of the largest items that occurs under that head-I have not seen the details of that-but at any rate usually one of the largest items is switching.

Q. Wait a moment and I will show it to you.
A. I will go ahead with the switching until you find that.

We have found it impossible to make a separation of switching because the road that performs the switching does not know whether the shipment is a state or an interstate shipment. A great deal of this switching is collected from other roads, where, for example, if the Cotton Belt should bring a car into Little Rock destined to an industry located on the Rock Island tracks, the Rock Island would switch that car to the industry, but we would simply get a switching order "Switch car number so and so to such and such an industry." The Rock Island would not know whether or not that car contained

an interstate shipment and it would be impossible for us to make a

separation between state and interstate.

For that reason the miscellaneous revenue in these cases where we endeavor to get at the facts as nearly as possible, has been treated separately, and we have not divided it between state and interstate, but have treated it as a whole and set aside a revenue proportion of

the expense to apply to the miscellaneous revenue.

The next large item is car service. That is demurrage, as it is commonly known, assessed on cars for delay in unloading. Of course if it could be considered as a part of the consideration for those shipments it would be possible to separate that according to the cars on which the demurrage occurred. But if it is simply considered as storage for the tracks it is a question then as to how it should be separated. That is the reason that in our preparation for these cases we have not attempted to make the separation.

The next large item is rents of buildings and other property. Practically the same thing will apply to that as to demurrage, because demurrage is equivalent to rent of the facilities for storing the cars during a given time; and the same difficulties appear there as

to a separation between state and interstate.

In fact, I think it is impossible, and doubtless the state's witnesses have found it impossible, to make an actual separation; and that is why they have omitted the relative state and interstate proportion.

Q. Under the same heading (page 8 of Exhibit N) you will find \$179,191.00 for hire of equipment: state your views about that.

A. That item "Hire of equipment" is made up of two elements: one the hire of cars belonging to other railroads and Companies while they are on the Iron Mountain Road; and the other is the

4293 amount received by the Missouri Pacific System or the Iron Mountain Road for the hire of its cars while they are off the

line.

The testimony I have heard in connection with all these rate cases whenever it touched on these points, was, that the cars were delayed much more in the state traffic, or local traffic, if they were referring to local trains, than in the interstate or through traffic.

I have seen various estimates as to the difference in the delay, I think running as high as twelve or fifteen times the delay to cars

in connection with state traffic as in through traffic.

Of course the difference in the length of haul for the two kinds of traffic makes it very evident there must be increased delay, at least

in proportion to the increase in the length of the haul.

That would apply only to the debit end of this account, because neither state nor interstate traffic has anything to do with the amounts collected from the several carriers, while the cars of the Iron Mountain Company are on other roads.

So I think this method of division for hire of equipment which simply takes the balance and divides it on a revenue basis, without any allowance at all, produces an injustice to the intrastate traffic.

because it does not assign enough to that traffic.

4294 Q. There should be allowance to cover the increased use, growing out of demurrage and so on?

A. Yes, sir.

Q. Mr. Nay, I want to call your attention next to the apportionment of passenger expenses made on Exhibit M (introduced by Mr. Wharton in this case): you have examined Exhibit M, have you?

A. Yes, sir.
Q. The State has adopted a different method of making that division and seems to divide it between different classes of cars without regard to trains: I would like to know, in a general way, what you think with reference to the methods that have been adopted by the

State for that purpose.

A. In making this passenger division the percentages have been based, I think throughout, on the month of October, 1907, to which the same objection applies as in connection with the division of the freight business. No one month can be taken as representative of a long period, six months or a year; and the division throughout has been largely on the basis of car miles, which I think is inaccurate in many cases because many expenses are divided on a car mile basis, which have little or no relation to the car miles of the trains, or are governed by the car miles. Again, the car miles in local trains, which carry no Pullman cars, are treated just the same as those

in through trains which do carry Pullman cars; and that 4295 works an inaccuracy, because it does not assign a sufficient proportion of the expense to the traffic carried in local trains, although no division has been attempted here between through and

local.

It seems to me, to be consistent, the same division should have been adopted here between through and local as in connection with the freight, because there are through and local passenger trains, just as distinctive as through and local freight trains.

The reason given for not separating the through and local passenger trains was that practically all of the through trains do the

local business.

That is true also of freight trains and I think there is an inconsistency in the method in not separating the pasenger expense between through and local, the same as they did in connection with the freight expenses.

The first item under this head is "Maintenance of Way and Struc-As stated in connection with the freight proportion of this expense, perhaps ninety per cent are not governed by the car miles,

or have little to do with the car miles.

The reasons stated on this account in connection with the freight service all apply to the passenger traffic with equal force. That is to say, the expense is caused by deterioration, by the action of the eleand not by the car miles; and that the expense is incurred by reason of wear and tear and deterioraments,

4296 tion that occured in prior months and not during the month

of October, 1907, and not during this period.

Then again, even as to that proportion of the expense (which is small) that is affected by the car miles; it is not fair to consider an express car on a parity with the coaches and Pullman cars.

An express car is simply a very substantially built freight car

which they run in passenger trains. It has eight wheels under it, while practically all of the Pullmans have twelve wheels and many of the passenger cars have twelve wheels.

Q. Then there is a difference in weight, isn't there?

A. Yes, sir, there is a marked difference in the weight of the cars themselves. The Pullman cars and parlor cars, chair cars and the

coaches of the Company being heavier than the express cars.

And the weight has a great deal to do with the maintenance of way expenses, because we know from experience that it is frequently necessary to substantially strengthen bridges and put the track in better condition to accommodate heavier equipment.

It is, however, frequently the case that large expenses are incurred solely because of the operation of heavier equipment. The facilities would have been adequate for handling the traffic in lighter

4297 equipment.

For all these reasons I think the division of expense for maintenance of way and structures, the passenger proportion, on a car mileage basis, among the four classes, namely, coach, pullman, mail and express, and especially for one month only, will not produce results that can be relied upon as representing actual conditions.

As to maintenance of equipment, the repairs to locomotives have been divided again among the four classes of passenger train cars on a car mileage basis, while it seems to me there is very little relation between the mileage made by these cars and the repairs to the loco-

motives.

This is especially true because the repairs made to the locomotives during the month of October, 1907, are those caused by wear and tear during a previous period; and even if there was a relation between the car miles (which I think there is not) and the repairs to locomotives, it would be unfair to divide these repairs caused by wear and tear over perhaps a preceding year, on the basis of the miles made in one month, the month of October, 1907.

This emphasizes, I think, very strongly the objection to using per-

centages based on any one month.

Another injustice that is worked in connection with repairs to locomotives on this basis of division may be illustrated as

follows:

4298 Suppose two trains, one a local passenger train, and the other a through passenger train; the through passenger train consisting of nine cars, three of which are coaches; and the local train consisting of four cars, three of which are coaches. Suppose the repairs to the two locomotives will average the same, for example \$2,400.00 per annum.

The total expense of the engine pulling the local train should be

charged to local service, namely, \$2,400.00 per annum.

If that were divided under the State's plan, three-fourths thereof,

or \$1,800.00 would be allotted to coach service.

On the other, or through train, using the State's plan, one third of the total expense, or \$800.00 would be assigned to coach service; making a total of \$1800.00, plus \$800.00, or \$2,600.00, assigned to coach service for repairs to locomotives; providing the local and

through trains had been computed separately, and the State's plan

of dividing on a car mileage basis had been used.

However, using the State's plan of combining the two trains, we would have a total of repairs to locomotives of \$4800.00, a total of thirteen cars in the two trains, of which six would be coaches and six-thirteenths of \$4800.00 would be assigned to the coach cost of repairs to locomotives, which would be about \$2200.00, as against

\$2600.00, which would have been assigned if the local and

4299 through trains had been computed separately.

Of course I am supposing that these two runs are of equal length and that the car mileage would be in the same proportion as the number of cars in the train, which would be the case if the two

runs were of the same length.

This shows that the State by abandoning the plan followed in connection with freight service of dividing the expenses between through and local, has relieved the intrastate expenses of charges that would have gone thereto if they had followed the division between through and local in connection with the passenger service.

Q. Should there be any difference made in the cars on local and through trains on account of the more frequent starts and stops of

the local as compared with the through trains.

I don't know about that and I want to call your attention to it.

A. I should think there would be because it has been testified by operating men that starting and stopping causes more wear and tear, or damage, that subsequently must require expenditure for repairs, than straight running on the track.

Q. If that is true, and if it is also true, as has been shown in this

case, that the local trains carry a large preponderance of the state passengers, would not the disregard of that element work an

4300

injustice to the local service?

A. Yes, sir. That is, it would fail to charge a sufficient

proportion of the repairs to the traffic hauled in local service.

In a division of the expense of maintenance of passenger train cars, the Pullman cars are omitted, and the expense is divided among the three classes, namely, coaches, mail and express cars on the basis of the mileage of those cars during one month, October, 1907.

The same objection applies here, that the repairs were made necessary by wear and tear during previous months and that no one month should be taken as representative either of the repairs or of

the mileage made by the cars.

This basis assumes it costs just the same per car mile to repair a coach as it does to repair an express car; while as a matter of fact it costs considerably more. Some men have estimated the cost at double for repairing coaches as to repairing express cars. No allowance has been made for this excess cost.

Q. Now go to the traffic expenses, please.

A. The traffic expenses have been divided on the gross earnings basis, which assigns to mail and express traffic 19.33 percent of the total traffic expenses.

The traffic officials, whose salaries and expenses are included under

this head, have practically nothing to do with either the mail 4301 or express service.

I am speaking of the common practice among railroads, and I am informed that the Iron Mountain is no different in that

respect.

The contracts for express service in nearly every case made by the executive officials, usually by the President of the Company, or some one higher in authority, and are turned over to the operating officials to be executed. The accounting department looking after the proper revenue to be received from the Express Company.

The mail service is not covered by contracts, the United States Government determining the rate of mail pay, and the operating officials and their forces attend to the carrying of the mail under the

conditions prescribed by the Government.

Q. "Salaries and expenses": Is that expense which I think has been described by the traffic men in this case as efforts to work up business, advertising, foreign agencies and things of that sort.

Isn't that solely and exclusively for the purpose of securing freight and passenger traffic? Do the railroads in any case employ traffic men to work up the express business or get up mail contracts? Did you ever hear of such an application of their talent as that?

A. No, sir. The expenses under this head are simply 4302 the passenger proportion of expenses and would not include

any freight.

Q. I know that, but I am speaking of it under the broad term in which it has been used in this case. Is there any conceivable reason why twenty percent of that expense, practically, should be charged to mail and express?

A. No, sir.

Q. What were you going to say about miscellaneous?

A. I was going to say there is another class of miscellaneous passenger revenue, speaking of mail and express as miscellaneous for the present. That is such as "excess baggage" with which the traffic men do have something to do; these men whose salaries and expenses are carried under this head, prescribe the rates for excess baggage and provide for the excess baggage checks, and things of that kind.

But the miscellaneous passenger revenue has been omitted from this division. I think while they do have something to do with that miscellaneous passenger revenue, their duties in connection with it are not sufficient to entitle it to be included. But, if that is omitted, certainly the mail and express should also be omitted, because these men have less to do with the mail and express traffic than they have to do with the miscellaneous passenger traffic which has been omitted.

Q. In getting at this thing on the basis of actual facts, the State's accountants have, in this instance, really omitted the only item of miscellaneous expense which could reasonably be brought into this account; and have brought into it these two items of mail and express which have no relation whatever to it, have

they not?

A. Yes, sir. Speaking of actual facts, I do not think there is any

result in this division, from start to finish that represents an actual fact.

Q. The next heading I believe is "Transportation Expenses":

Take that up next please.

A. This exhibit shows that the station expenses under the heading of "Transportation Expenses" have been divided on the basis of the number of passenger of each class handled, after making allowance of ten cents per day for handling mail at certain stations.

Q. There is an assumption there, isn't there?

A. Yes, sir. "Assuming that each intrastate passenger makes use of two terminals, and each interstate passenger makes use of one terminal"—and then the division is made by doubling the number

of intrastate passengers.

While this assigns a large portion of the expenses to intrastate traffic I don't think it assigns a sufficient proportion, because the transstate traffic has not been allowed for, and the trans-state passengers would make no use of the terminals in the State of Arkansas.

Q. The State's accountants make no allowance on that

account?

A. No. sir.

Q. That is a small matter, but at the same time, if the accountants who prepared this exhibit were basing it on actual facts, they should have taken that into account, should they not?

A. Yes, sir. Q. "Yard and train expenses" I believe is the next item.

A. Yes, sir. This sub-division of the transportation expenses is made on the basis of the mileage of the four classes of passenger train cars for the one month of October 1907; and the same objection would apply here as mentioned under the head of repairs to locomotives, so far as being unfair to the traffic—that is, not allowing a suf-

ficient expense to the traffic carried in local trains.

This might be illustrated as follows: take a local train with three cars and a local run of one hundred miles; the local miles would be three hundred. Then take a through train of nine cars and suppose the through run to be two hundred miles, the car miles would be eighteen hundred; making a total for the two trains combined of twenty-one hundred car miles. The local train's car mileage would be 14.3 percent of the total; and the through train's car mileage

would be 85.7 percent of the total.

4305 Assume the wages of the crew running the local train to be \$25.00; and of the crew running the through train to be \$40.00; we would then have total wages of \$65.00, \$25.00 of which actually was incurred in connection with the local train, and \$40.00 of which was actually incurred in the operation of the through train; which would have been the amount assigned to the local service, which carries the greater portion of the local traffic, if the local and through has been kept separately, as was done in connection with the freight traffic. But now, by combining them, and dividing the total wages of \$65.00 on a car mileage basis, will assign to the local run 14.3 percent of \$65.00, of \$11.30 as against \$25.00, the estimated amount actually paid; and to the through train \$57.70, as against the

\$40.00 estimated to be actually paid.

This illustration is used to show that the abandonment of the division between through and local in connection with passenger service has the effect of reducing the expenses applied to the traffic carried in local trains, the greater proportion of which is state traffic.

Furthermore, this division of the train expenses on a car mileage basis assumes that the wages of the train crew which runs a train of nine cars are exactly three times the wages of a train crew which

runs a train of three cars.

Of course that is an absurdity, because the wages of conductors and brakemen, engineers and firemen, and other 4306 train men, are not based on the number of cars in the train, but are usually based on the number of miles the train runs or on a fixed rate per month. And the wages of the crews on the local passenger trains are greater per train mile than the wages of the crews

on the through trains.

So that the division of the wages, even if it were made on a train mile basis between local and through would not assign a sufficient proportion to the local train. And a division on a car mile basis much less assigns a sufficient proportion to the local trains, because there are more cars in the through trains than in the local trains; and as the local trains carry the larger proportion of the state business, the result of this method is to assign to the interstate traffic too great a proportion of this train and yard expense, and too small a proportion to the state traffic.

Q. Does not yard and train expense include the cleaning of cars, Mr. Nay?

A. Yes, sir, it includes the cleaning and care of cars.

Q. Is there any comparison between the cost of cleaning coach, Pullman, mail and express cars? Can that be properly divided on a car mile basis?

A. No, sir. The cost of cleaning coaches and Pullman cars is very much in excess of the cost of cleaning mail and express cars. 4307 A division of that expense on a car mileage basis is not fair.

This also includes the cost of supplies, such as ice, water, and The cost of those supplies for coaches would be greater than for mail and express cars.

Q. Are not the coaches cleaned at the end of every run, whether a short run or a long run, so the length of the run has no connection

with the cost of cleaning?

A. Yes it is true that a coach is cleaned at the end of a run; so if a coach makes a 500 mile run it is cleaned at the end of a run; and if it makes a 200 mile run it is cleaned at the end of the run. Therefore, that expense is not in proportion to the car miles.

Q. I notice a division of expense for loss and damage, which is a small amount, but inasmuch as the State assumes it has done these things on an actual basis, and has attained accuracy, I will ask you

to look into that.

I see they have divided the actual expense between interstate and

intrastate business in proportion to gross earnings. But they have made no allowance on account of local or state business:

What do you think of dividing that in that way, without making

any allowance in favor of the local or state business?

A. I think there should be an allowance made for excess cost of intrastate over interstate business, which 4308 not been made.

Q. Explain why you think that should be made, if you please.

A. Because the loss or damage to baggage occurs through the handling, either the unloading or loading, or trucking at stations, and the baggage handled on the intrastate movements would be handled oftener, loaded oftener, unloaded oftener, and handled at stations oftener. For that reason the loss or damage would be greater in connection with state traffic than with interstate.

Q. I understand there is a larger quantity of baggage carried on through trains, and that interstate passengers carry more baggage, perhaps, than local passengers. But the ratio of loss and damage from the causes you have mentioned is larger in the local service. the state service, than it is in the interstate service, on account of the greater frequency of handling; and it is on that account that you

think the allowance should be made?

A. Yes, but I don't believe it is true that the through trains carry more baggage in proportion to revenue than the local trains.

Q. State what your understanding about that is.

A. That used to be the impression, I think, until some investigations were made and it was found that the local or state trains carry more baggage in proportion to the revenue than the through

4309 trains; because much of this local, state business, consists of traveling men, drummers who have large sample cases. While if you go to a station and see a man taking the through train

from Chicago to Kansas City, for instance, he will have his grip in his hand; it is not put in as baggage. It is only when people are going for a long journey or for a protracted stay that they take a trunk which goes into the baggage car.

In connection with the Missouri rate case, after hearing part of the testimony in that case, I had an investigation made on certain portions of our line as to the actual amount of baggage checks issued at a large number of stations. The result was that there were more baggage checks issued for state traffic than for interstate traffic.

Q. That is, the proportion of loss and damage to the revenue received is greater in the state than in the interstate business?

A. Yes, sir, because of the additional handlings. A passenger buys a ticket or presents mileage, and he has three or four sample That baggage is handled twice at the cases and rides 25 miles. station and once on the train, making three handlings.

Another, passenger boards the train, say at St. Louis, and buys a ticket to Texarkana and pays-I don't know what the rate is, but suppose it is \$10.00. That baggage receives the same number 4310 of handlings as in the case of the man who paid

seventy-five cents.

So it makes the causes that produced the damage to baggage much

greater in proportion to revenue on the local trains than on the

through trains.

Q. Under the head of "Total operating expenses" the State has made an explanation of the methods used by them in the division of passenger expenses: look at them and see if there is any comment you wish to make in connection with it.

A. Exhibit L, as I understand it, is an explanation where these various items mentioned in Exhibit M have been summarised and totals made for what purport to be train cost under coach and Pullman, and "other costs, state and interstate"; and another heading. "Train and other costs, mail and express". And then "Total".

Q. I notice they state in that explanation that the amounts charged to state and interstate are expenses not chargeable to train service; would not that properly include maintenance of way and structures. and in that view should not maintenance of way and structures be charged to state and interstate rather than as they have divided it?

A. The same remarks would apply there as made in connection

with the freight service.

The cost of maintenance of way has been treated as an 4311 expense directly in connection with or attributable to the train cost. I do not think it properly belongs under that head.

Q. The point is, that to the extent to which that is not properly a train cost, and it does not grow out of operation, it should not be treated as a train cost.

A. No, sir, it should not.

Q. Under the next sub-head division, "Cost of Pullman service" between state and interstate business, they have divided between intrastate and interstate in proportion to the passenger miles of each class of traffic. And then below that they have made a separate accounting with regard to Pullman service:

Just take that up, Mr. Nay, and explain the effect of that division.

A. All of the figures used to arrive at this coach service have been estimated, and the sum of all these estimates or approximations are now divided between state and interstate traffic on the basis of the passengers one mile.

Now, if these expenses had been actually ascertained instead of being estimated, a division on the basis of passengers one mile would be unfair, because proper allowance has not been made for the difference in the length of the hauls, the long and short hauls, such as addi-

tional expense incurred by frequent stops, etc., items that

4312 have been mentioned.

Besides that, there is included in the figures passengers one mile on which the percentages for dividing the coach expense are based; the passengers one mile hauled in Pullman cars. That is to say, a separation has been made between the coach and Pullman expense, but the separation has not been made between the passengers one mile hauled in coaches and in Pullman cars; but the entire passengers one mile hauled in both kinds of cars have been applied to the division of the estimated expense of the coach proportion.

This is unfair, because the State assumes that only twenty-five per cent of the passengers one mile hauled in Pullman cars are State

That percentage I would consider to be large. But supposing that is true, if the passengers hauled one mile in Pullman cars had been deducted, the result would have been a very large reduction in the passengers hauled one mile, interstate. That is, seventy-five per cent of those passengers hauled one mile interstate would have been deducted from the interstate passengers, and only twenty-five per cent from the State passengers one mile; and that result would have produced percentages which would have assigned a much greater proportion of this estimated amount for coach expenses to intrastate than has been assigned by the method used here.

It is erroneous to apply the entire passengers one mile in 4313 both coach and Pullman service to the strictly coach service, and then apply a different percentage to the Pullman ex-

Q. This 73,842,620 passenger miles is divided on the basis of 58.71 intrastate, and 41.29 interstate, and includes all Pullman passengers as well as coach passengers, does it not?

A. Yes, sir.

Q. And that total expense of \$896,378 is divided between them on the basis of passenger miles of each class of service?

A. Yes, sir, that expense is divided on the basis of the passenger miles that were transported in both coaches and Pullman cars.

Q. And yet they have in the estimate that follows that, separated the Pullman, and estimated it on the basis of 75 per cent interstate passengers and 25 per cent state passengers in those cars?

- A. Yes, sir.
 Q. That is very far from a division on the basis of actual facts is it not?
 - A. Yes, sir, that is erroneous absolutely. Q. And it involves a pretty large amount?
- A. This method of division transfers a large amount from the intrastate to the interstate column, which would be in the intra-

state column if divided on the basis of passengers one mile in the two kinds of service, considered separately.

Q. That item covers a very large aggregate, in the neighborhood of nearly one million dollars?

A. It covers over one half of the total passenger expenses, \$896,000 out of \$1,678,000.

Q. I want to know if that result was obtained on the basis of facts actually obtained, as is claimed.

Judge HILL: We do not claim it was all obtained on the basis of actual facts.

Col. Moore: Let the testimony speak for itself.

A. This division is not based on an actual fact, because it divides the coach expense on the basis of passengers one mile transported in both kinds of cars, coaches and Pullman.

Q. I want to ask you if the items of which that is composed, which precedes it, was arrived at from actual facts or from approximations and assumptions.

A. The items that go to make up that expense are all on the basis

of estimates.

Q. I see on page 5 of this Exhibit M the item "Miscellaneous revenue" divided between state and interstate business in proportion to the gross earnings of each class: I believe you stated a similar division of freight revenue was improper: what do you think about this?

A. The division of that item between freight and passen-4315

ger?

Q. The division of that between state and interstate business. A. There are many items there which cannot be divided and of course this division on the basis of state and interstate business may or may not be right.

We felt that the difficulties in the separation of that were such that we would set aside this revenue and not attempt any division of it.

Q. You have explained that as regards the freight revenue: I wish to ask you if the same reasons apply to an attempted division of the passenger revenue.

A. Yes, they do.

Q. You have been over the exhibits now in detail, those relating to passenger as well as to freight traffic. You have given the matter some study, I see, from the statements you have made. I wish you would state what your judgment is in view of your experience in connection with such matters, as to the comparative merits of this system adopted by the State for dividing the expense between state and interstate business, and a division on the basis of revenue with proper allowance for any excess cost that may be incurred in conducting local or state traffic.

A. My judgment is that this method which has been used by the State, which is based on a series of approximations and 4316

which does not produce any actual results, either as to the division between through and local train service, or between state and interstate, or any of the other classes into which sub-divisions of expenses have been made; and then the final totals of these summaries being divided on a ton mile basis or passenger mile basis, cannot be relied upon as producing figures which represent actual conditions.

The ton mile basis has been used by the same witnesses in other cases as applied directly to the expenses. And the fact that the increased cost has been greatly enhanced in this division over what it was estimated to be by those same witnesses in the Missouri rate case, indicates that they have concluded they were mistaken, and have now adopted a method which approaches nearer to the method produced

by the revenue basis.

It is conceded by every one familiar with conditions, that no accurate division can be made between state and interstate traffic; but certainly, the revenue basis with the merit of being based on rates which do consider the cost of the service-that is, the relative cost of the different kinds of service, such as high class traffic, low class traffic, car load and less than car load, long hauls and short hauls, all of which have been enumerated in my former testimony, must certainly produce more nearly accurate results than any basis which involves a long series of approximations, some of which is even approximated on a ton mile or passenger mile basis.

In this connection I would like to make a little explanation con-

cerning my former testimony on the revenue basis.

One of the witnesses for the state testified that I had set up a "snow man" and then knocked him down, because I had divided the expenses on the revenue basis and then said something else must be

allowed for excess cost.

The witness apparently does not thoroughly understand the proposition in hand, or did not carefully consider his testimony regarding the "snow man." The revenue basis, which is the basis for dividing expenses on the revenue derived, based on rates which as has been said do take into consideration the relative costs of the different kinds of traffic, does not measure the entire excess cost inasmuch as the average revenue per ton per mile on state traffic is as much greater as the average revenue per ton per mile on interstate traffic, as the excess cost on state traffic per ton mile is greater than that of interstate traffic.

So that when the revenue basis is used and it is determined that the average revenue per ton per mile on state traffic is double that of the average revenue per ton per mile on interstate traffic, the revenue basis does allow for an increased cost of one hundred per cent, on a

ton mile basis.

When operating officials of long experience, who are thoroughly familiar with local conditions, testify that the increased cost of handling state or local business over interstate or through business is from three to seven times as much, they refer not to the revenue but to the traffic itself, which would be represented by ton miles. And if from their testimony it should be said that the state traffic costs four times as much as interstate, and it should be found that the average revenue per ton per mile is twice as much per ton per mile on state as interstate, then after a division has been made on the revenue basis, in such a case the allowance of one hundred per cent increase cost, or twice the cost of state traffic over interstate traffic is inadequate, and the additional excess cost must be added to conform to the testimony of the experienced operating men who have first hand knowledge of the actual cost.

For that reason the additional excess must be allowed when the testimony shows that the actual excess is greater than the excess of the average revenue per ton mile on state traffic over interstate traffic.

So there is no setting up of a "snow man" or knocking him down either, but simply supplementing the revenue basis by adding excess cost, based on the testimony of experienced railroad men.

I desired to make this explanation, fearing the matter was not thoroughly understood; and in order that the Court might understand just what my position is with regard to the revenue basis and its merits.

Q. According to the views expressed by you just now as I understand them, if there should be an increase or diminution in state or

interstate rates, which would affect the revenue per ton per mile, it would not, when you attempt to adjust the difference in cost upon the basis of its costing so much more to conduct one class of business over the other, on the basis of ton miles, affect the result of the application of the revenue theory at all, if the revenue derived from the State business per ton per mile was double that derived from the interstate business, and it cost four times as much. You would make proper allowance, as I understand you, with reference to the ton mile basis of increase, after you had made proper allowance for that additional revenue; and if it should fluctuate one way or the other it would simply affect that supplemental allowance to be made: is that correct?

A. What I intended to say was that this supplemental allowance should fluctuate in accordance with the fluctuation in the revenue. That is on the principle that if a man is manufacturing different kinds of machines, and one costs three times as much as the other,

he would sell the one that costs three times as much for three 4320 times the price, in order to produce the same percentage of profit.

4321 Frank E. Ward—Recalled, testified as follows:

Direct examination.

By Col. MOORE:

Q. You have been sworn before and have testified before in this case?

A. Yes sir.

Q. You stated in your former examination what your experience in railroad operation had been, I believe?

A. Yes, sir. Q. The State, for the purpose of determining the relative expense of transporting State and interstate freight, has attempted to ascertain the cost of operating local and through trains, and

the amount of state and interstate freight in ton miles car-ried on each class of trains. They have taken the month of 4322 October, 1907, as representative of the six months including July

to December of that year.

They first attempted to ascertain the state and interstate freight carried on each class of trains, that is, the local and through trains, during that month, by taking the wheel reports and way bills of freight carried on local trains during that month, and deducting that from the total ton miles taken into account during that month by the auditor, whose basis disregards the actual movement of These accounts do not represent business which actually moved in the month of October, but are made up as follows:

System business, which covers shipments moving between stations on the Missouri Pacific System, which includes the Iron Mountain, is taken into account on what is known as "The forwarded basis";

Interline business, representing shipments covered by way bills to or from points on other railroads, is divided into three classes,

as follows:

"Interline forwarded", "Interline received" and "Interline through or overhead".

They next attempt to divide and apportion the relative expense of local and through trains on the method adopted in the formula filed in this case as "Exhibit K" and after having assertained

in this case as "Exhibit K", and, after having ascertained the expense of each class of train in that manner, they apportioned it between the state and interstate freight carried on the local and through trains, respectively, on a straight ton mile basis.

You have made some examination and study of Exhibit K, have you not?

A. I have.

Judge HILL: Do you mean that statement you have read to the witness is a summary of the testimony thus far, or is it a summary of what you expect to prove?

Mr. Moore: I state that as a summary of my understanding of

the theory adopted by the State.

Judge HILL: It is a very incorrect summary, then.

Col. MOORE: I do not think there is anything in it that has not

been covered by the evidence in the case.

Judge Hill: If you wish to submit that to him as a hypothetical case you expect to prove hereafter, I have no objection; but if you submit it as a statement of the evidence, I wish to object to it.

Col. MOORE:

Q. I will assume, for the purposes of the question, that the facts I have stated are proven, or will be proven. Upon that assumption, Mr. Ward, I wish you to state your views, as an operating man, of the correctness of the State's method of separating and apportioning the expense of transporting state and interstate freight.

A. In my opinion, such a method as you have outlined would not be accurate and reliable for the purpose of ac-

complishing the object sought.

In the first place, the taking of any one month would not, in my opinion, be safe for determining so important a thing as the cost of performing service, when it is to be used for determining the

revenue of the company.

The months vary very greatly, one from the other. The month of October, on most railroads in the West, is a month of very heavy business, by reason of the difference in the method of taking record of the tonnage, part of it being taken from billing, and part from the date of receipt, there would be a very great opportunity for tonnage to be omitted that was actually carried in that month. Or, on the other hand, there might be a great deal of tonnage included in the figures which would not move at all on the rails of the company during that month. Therefore, the great uncertainty as to the accuracy of the tonnage would make the first grave doubt as to the accuracy of the method for computing the cost.

Q. Would the incorrectness that would result from that method of ascertaining the relative proportion of freight carried on local and through trains be cured by the fact that the omissions and the

inclusions to which you refer would occur from month to month and would be about the same in each month. Or, in other 4325 words, would the difficulties you speak of be covered by an equality of "lap-overs" from month to month in the freight

omitted, or that might be omitted in the Auditor's revenue accounts?

A. It would not, in my opinion. I do not believe that any one month should be taken or could be taken as a basis upon which to determine an accurate computation. Any month might be a high one or it might be a low one; and if it should happen to be correct in any given case it would be so purely by accident and not by reason of the inherent accuracy of the theory. No short period of a

day, a week, or a month, would be safe. They would all give op-

portunity for variations sufficient to destroy the value of the method as a means of determining the separation of cost.

Q. What effect, if any, would any change in the character of the tonnage have upon the correctness of that method of ascertaining the total tonnage.

A. By "Character of tonnage" do you mean the character of the

freight?

Q. I mean the character of the business, and the character of the freight, and all the characteristics that enter into and form an element in determining whether the method of keeping accounts by the auditor would give a correct result.

A. A variation in the character of the business handled that is, business of kinds that had different origins or destinations during that time—for instance, if during the month that was used as the basis of these computations there should be any material change in the class of business handled, there might be a very material opportunity for a variation in the time at which those tons would be recorded and they might be omitted in that month, or other tonnage might be included. It would have a bearing on that same opportunity for inaccuracy.

Q. What effect would congestion during the period that is covered by this investigation, and during the month or a congestion which was at its height during the month that is selected as a representative month, and in which the relative tonnage is sought to be de-

termined in the manner I have described, have?

A. If congestion existed in the State of Arkansas during the month that was used in this theory, undoubtedly the same congestion existed in States outside of Arkansas, on lines connecting with the lines that are being considered here. That would mean in any such period of congestion the business would all move more slowly than at a time when business was being handled in a normal way. That would mean that business would be delayed outside of the State and inside of the State, and the margin for such inaccuracies

would be greater. There would be a greater spread between the tonnage actually moved in that month and the tonnage

that was recorded by the method described.

Q. Would such a condition have a tendency to change the proportions of tonnage carried by the two classes of trains mentioned, that is, the local and the through trains?

A. Yes, sir, it would for this reason among others: that in a time of congestion, when a railroad is hard pressed to move its business and keep its terminals clear, it would use to the fullest possible extent the capacity of the engines on its local trains, and the proportion of long haul, or interstate business, handled on its local trains would increase during such a time. And the local trains being ordinarily such light trains, the addition of comparatively few cars to their make-up would materially alter the percentage of giving tonnage that was carried in those trains.

Q. What do you think of the practicability of apportioning the expense of interstate and intrastate traffic by separating and ascertaining the cost of operation of through and local trains, as the state

has done in "Exhibit K"?

A. I have given the matter of finding an accurate method of dividing that cost considerable thought, and have heretofore expressed myself as being of the opinion that there was not any prac-

ticable way of determining it by any mathematical calcula-4328 tions, or any exact method; and I am now of the same

opinion.

I do not think the State has yet solved the problem. I think the

plan outlined in Exhibit K is not a practicable one.

Q. In introducing this scheme of division the State assumes that it has presented a method which is not based upon theory, but upon actual conditions; and they advance it here as an apportionment based on actual facts.

Judge Hill: I do not think that is a correct statement of the

State. We object to the form of the question.

Col. Moore: Q. (Continued.) In that view, what is your opinion of its merits as presenting a division based either actually or approximately on facts.

A. As I read the State's Exhibit K, the basis used is one that is not based upon facts, but to a very large extent upon assumptions

of facts which in my opinion have no proper basis in fact.

My idea of the office of an accountant is that he should record accurately things that occur, and not undertake to formulate theories to prove one thing or another. It would be quite possible, by not very serious modifications of this particular theory, to make a very wide variation in the results that would be obtained from it.

4329 Q. Will you take Exhibit K and go over it in detail, and give your views as to the various divisions and the bases used

by the State's accountants in making their divisions.

A. Item one on Exhibit K refers to maintenance of way and

structures expenses, and states:

"The proportion of these expenses applicable to the freight business, as shown by the statements in this case submitted by the Company, has been divided between local and through train service on the basis of the total engine and car miles of each class, during the month of October, 1907, that month being considered representative of the business for the six months ended December 31, 1907."

Now, in the western country, so far as my knowledge and exper-

ience goes, the month of October is not an average month, but is always a month of heavy business. The month of October 1907, in particular, was an exceedingly heavy month—in fact I think business in the entire West was heavier in that month than in any previous month in the history of Western railroading; and heavier then than in any succeeding month.

Therefore, in the absence of actual local knowledge, I would not consider that month representative of actual business for six months

from an actual railroad standpoint.

The exhibit then continues as follows:

"In arriving at the number of engine and car miles we have added fifty per cent to the engine mileage of local trains for station switching, and have assumed that each engine mile is equivalent to

two and one half car miles."

4330 I question the feasibility of determining whether the addition of fifty percent to the engine mileage of local trains is an accurate addition. No operating man that I know of could determine with accuracy whether that addition is correct or incorrect. It may be right or it may be wrong—I don't know.

Q. Is not switching an indeterminable quantity that is continually

varying?

A. Yes, sir, switching on local trains does vary very much from day to day, and week to week, and month to month, and in fact it varies with every trip; and it varies on various portions of the track.

A local train as a part of its day's work may be engaged almost exclusively in peddling out less than carload freight; or, on the other hand, it may have very little of that to do and may be engaged in doing the local switching. Or, it may be engaged in it in varying quantity.

Q. Proceed with your statement Mr. Ward.

A. Then the assumption that "each engine mile is equivalent to two and a half car miles," is made. That is an assumption for which I can see no proper basis. I do not quite understand how that factor of two and onehalf has been reached.

In my opinion the effect of a locomotive passing over the track is very much more than two and a half times the effect of a car passing over it. The effect cannot be measured by the number

of wheels on the locomotive as compared with the number of wheels on the car. The blows which the road bed received from the improper balancing of the reciprocating parts of a locomotive might run two hundred, three hundred, or even five hundred percent as great as those of a car or a train of cars.

In fact, in my own personal experience, I have known of a strip of track to be enormously injured by a trip over it of one engine.

It was run pretty fast, though not necessarily exceeding the speed allowed. But if an engine is run fast over a piece of track, immediately following a heavy rain, which has made the track soft, it might do damage which will require thousands of dollars of expense to repair. While that same engine could be run over that same piece of track on a dry day and cause very little damage, scarcely ap-

preciable; so that the two and a half times is entirely insufficient, in my opinion.

Going along further in the exhibit, under the head of "Mainten-

ance of Equipment" the exhibit says:

"The expenses under this head are divided between yard, and local and through road locomotives, on the basis of the locomotive mileage of each class during the month of October, 1907.

We have added fifty percent to the mileage made by yard locomotives to provide for possible extra maintenance due to yard

service."

4332 This is another assumption. I don't know where they have found a basis for adding fifty percent. That may be too much or too little. The mileage of yard locomotives is not kept accurately. It is the custom of most roads to credit the yard locomotives with mileage, but, as a matter of fact, the basis of hours worked would be more accurate.

It is the custom on most roads, I believe, to assume that the yard engines make six miles an hour; but those mileage figures when applied to yard locomotives are estimates only and are made only for the purpose of comparison, to determine the comparative cost of maintenance, and to ascertain whether the engine is performing service enough to justify "shopping."

They are not necessarily accurate and should not be used, in my opinion, in connection with the determination of anything so important as the rates, which should be charged for carrying freight.

Continuing with this exhibit it says:

"We have added fifty per cent to the mileage of road locomotives in local service, to provide for the possible extra switching mileage; and again have added fifty percent to the switching mileage of the local train engines, thus ascertained, to provide for the possible extra maintenance due to switching service; (making seventy five percent added to the local engine mileage)."

In the first place, to provide for possible extra switching mileage they add fifty percent; and to that is added another fifty 4333 percent on account of possible extra maintenance due to

switching.

a my opinion, it is no more feasible to separate the cost of handling local and through business than for a general storekeeper to determine the cost of selling one article as compared to another. Those are assumptions for which I can find in my experience no basis in fact. I could not determine accurately whether those things are right or whether they are not, and I do not believe any accountant can do so.

Continuing further on with the exhibit, it says,

"The division between yard, and local and through road locomotives on this basis is as follows:

Amount charged to yard locomotive mileage	130,150
Fifty percent added for extra repairs	65,075
Local locomotive mileage	70,583
Total mileage	195/225
Percentage 37.64	

To that local locomotive mileage there is added 75% for extra mileage and repairs	52,937
Making a total of 123,520 miles, or 23.81 percent. Through locomotive mileage	199,981

The total expense under this head amounts to \$183,673.40. The amount chargeable to yard locomotives on this basis is 37.64 percent, or \$69,135.80. The amount chargeable to local service is 23.81 percent, or \$43,733.35, and the amount chargeable to through service is 38.55 per cent, or \$70,807.25.

The expense of maintenance of yard locomotives is divided between local and through service on the basis of the number of cars of each class of service handled by yard engines during the month of

October 1907.'

And then follows a statement of the number of cars handled and

the percentage of each.

Now, if I understand this correctly, it means that the ex-4334 pense of maintaining yard locomotives is divided on the basis of an account of all cars passing through the yards where

vard engines are employed.

It is customarily the case, in counting cars handled through yards, that they are counted coming in and going out, that is, two counts for each car. If they counted each car passing through a yard twice, they give the local cars no more credit for the services of the yard engine than they do a car passing right through the yard on the through trains. Therefore, the proportion chargeable under this method to the through service would be very much greater than is actually the case.

The opinion of myself, or any other operating official, as to the excess cost of handling state over interstate business is on the basis of actual freight and not on the basis of the number of cars passing

through the yards.

I might illustrate that position of mine by pointing to the fact that in practically—in fact I might say in all railroad terminal yards, a very large percentage of the cars on through trains pass through without any handling. The train runs in on to a yard track, and if there is a change in the tonnage by reason of a difference in grade or a difference in motive power on the next division, a few cars will be taken off or a few cars put on that

4335 train. Or, there may be a few cars taken off that train, which are destined to that particular station, or to stations on the next local run. But the great majority of cars are not handled

in those terminal vards.

On the other hand cars that run in local trains are all handled; they all have to be placed in their trains by the yard engine; and after they reach their destination or the distant terminal they are again handled and placed at industries, or on a house track, or in train yards, to go out on through trains going beyond.

So that a method which would count the cars handled in local trains and in through trains on the same basis would be very inaccurate in determining the proper proportion of cost of maintaining yard locomotives to apply to one service as against the other.

Q. If you do not desire to say anything more about locomotives, the next item there is "Freight Cars" which you will find immediately following that sub-division.

A. This item (b. I think he calls it) freight cars, is as follows:

"The total amount of expense for maintenance of freight cars is \$477,895.64. This amount is apportioned to Arkansas by the Railway Company on a car mileage basis. In dividing this expense between local and through service, however, we have taken into consideration the element of repairs due to the stopping and starting of trains at way stations, and repairs due to extra terminal

handling of cars in local service.

4336 Mr. A. M. Wellington, in his work on "Railway Location" (page 203) says, that the stopping and starting at way stations is the cause of approximately 21.5 per cent of the repair expenses of freight cars; and that the terminal handling is the cause of approximately 13.5 per cent of the repair expenses.

Taking these elements into consideration, the maintenance ex-

penses may be divided as follows:"

And then follows a table using the percentages given by Mr.

Wellington.

I have looked at Mr. Wellington's work and I find that it was written some thirty years ago. I do not know what investigations Mr. Wellington pursued which led him to reach the conclusions shown in his table; but I do know that railroad practice since his book was written and his table published, has entirely changed; and in my opinion his figures can not be verified by any test in modern practice, because the repairs due to terminal handling are very much greater at the present day than 13.5 per cent.

As to the stopping and starting at way stations, I do not know,

but I think that percentage is probably too low also.

However, I feel quite sure that 13.5 per cent for terminal hand-

ling is not enough.

There is one feature alone which has changed conditions very much, particularly in terminal handling, and that is the use of the automatic couplers. In the days before air brakes and automatic couplers were used, switchmen and brakemen had to go be-

4337 tween the cars to couple them together by the use of a link and pin, and much greater care had to be exercised to avoid personal injury than is the case now, when the cars are coupled

by impact and no one has to go between them.

Cars are very much heavier now than they used to be, and the impact is greater and the damage caused is greater by coupling them at a given speed. While it is true that cars have been built more strongly in an endeavor to meet these new conditions, the fact is that the damage done to cars in switching at terminals is very much greater than it was several years ago, and, in my opinion, very much greater than the figure given by Mr. Wellington.

According to his figures there is a total of thirty five per cent of the repairs on freight cars due to starting and stopping and terminal handling, and sixty five per cent due to other causes. I do not believe any definite determination has ever been reached as to what those proportions are, but as giving some little light on the subject, the Burlington officials, six or eight months ago, were all here in Chicago to look into the question of the high cost of repairs on freight cars, and the cause of the heavy damages which we found occurred. We had some forty or fifty of our yard masters here in Chicago. It was the opinion of that body that the damage done to cars was somewhere near seventy five per cent in the terminal yards.

At that time we entered upon a campaign to reduce that 4338 trouble by modernizing some of the locomotives in the yards, and cautioning all those who were handling cars to handle

them more carefully.

The principal items that go to make up the cost of repairs to freight cars are the repairs to the draft rigging, the couplers, and the sills—the sills perhaps more than anything else. Damage to the car sills occurs to a very great extent in the yards in the switching of the cars.

Turning again to exhibit K, it states:

"Assuming that each local train makes a stop say each five miles; and each through train a stop, say each twenty miles; the local service should be charged with four times as much as the through service in proportion to car miles for the expenses due to stopping and starting. Assuming also that each car in local service received two terminal handlings (including handling at local stations) to each terminal handling of a car in through service, the local service should be charged with two times as much as the through service, in proportion to car mileage, for the expenses due to terminal handling."

And then follows a table illustrating that idea.

I assume that these average distances as stated are approximately correct. But that does not constitute a proper measure of the expense of handling local as against through service, because the through train in starting and stopping simply takes the siding, and after it has met the train, which has the right of the road, it then proceeds; or, in many cases its stop is only for the purpose of taking coal and water and it does not have to stop even while the man turns the switch. On the other hand the local train goes

4339 into the siding and after it is there it has its work to do by taking out the cars or placing in cars at the various industries or on the house track at that station; and it must pick up other cars and place them in the train. To an extent that constitutes, for all practical purposes, a terminal handling for all of the cars in that train at practically every station along the line of its run. So the multiple of four to one for the through service, on account of the assumed difference of five miles and twenty miles would not be correct. It would be more nearly eight times although I don't know that eight is accurate. However, it is more nearly eight times than it is four.

For that reason the local, in my opinion, under this theory is not

charged with nearly as large a proportion of the car repair expenses as it should be.

I do not know that I want to make any comment on the item of "Supervision, etc."

Q. Mr. Ward, right in that connection, in the same paragraph

you have just read is a statement to this effect:

"Assuming that each car in local service received two terminal handlings (including handling at local stations) to each terminal handling of a car in through service, the local service should be charged with two times as much as the through service, in proportion to car mileage, for the expenses due to terminal handling."

Is there anything about that point upon which you wish to

comment?

A. Apparently the accountants who worked this plan up counted this handling at local stations as a service of the same character as the terminal handling, and this multiple of two times for one is wrong. I think I covered that in a general way in my statement in regard to the stopping and starting each five miles instead of each twenty miles. They all come under the same class. The whole method, it seems to me, fails to take into account that feature that the handling of the cars in the local service is very much greater than in the through trains.

Q. What is the next item you wish to take up?

A. Under the head of "Transportation expenses" is an item

Yard and terminal expenses." The exhibit stated:

"These expenses are divided between local and through business on the basis of the number of cars handled at terminals as explained under the head of maintenance of yard locomotives."

The same inaccuracy in regard to the division applied to yard locomotives as between local and through trains would apply here.

Q. "Fuel and Locomotive Expenses" I think is the next item: what have you to say about that?

A. The exhibit says:

"According to a test made on St. Louis Southwestern Railway during October, 1908, the local engines consumed 3.5 percent more fuel per engine mile than the through engines. Assuming that the same conditions would prevail on The St. Louis, Iron Mountain & Southern Railway during October, 1907, the fuel and the miscellaneous locomotive expenses would be divided between local and through service on the following basis:"

4341 And then follows a table carrying out that idea.

It seems to me that the distribution of the cost of fuel and locomotive expenses on the basis of a test made on another railway in another year, would hardly be fair considering the importance of the conclusions to be reached and the results of such conclusions.

As I believe I stated when I testified in this case before, engines of local trains are almost always smaller than those on through trains; and are loaded to a smaller percentage of their capacity than are the larger engines on the through trains. Therefore, if in this test 3.5 per cent more fuel per engine mile was used on those small engines, lightly loaded, than on the heavy engines, heavily loaded,

the cost per ton per mile for the fuel expense must necessarily be very much greater for the tons handled on those local trains than for the tons handled on the through trains. So the conclusions

reached in the exhibit would be very far from being correct.

The difference of 3.5 per cent that is shown on the exhibit is undoubtedly due to the fact that those engines on the local trains do so much more starting and stopping, and do so much more switching in transit, that their mileage is counted, as I read this exhibit, as straight mileage, and no allowance is made in that particular case for station switching or anything else but straight mileage; so the basis is very wide of the actual facts and of the correct ones.

4342 Q. The next item is "Other Train Expenses": what have you to say about that? That includes casualties, and things

of that sort.

A. The exhibit says, under the heading of "Other train expenses": "These expenses are such as are incident to, or generally caused by, the operation of trains, and are not included in the preceding classifications. They are divided between local and through service in proportion to the train miles of each class of service, during the

month of October, 1907."

If the item of "Casualties" "Personal Injuries occurring on trains" is included there (and I believe it is) the train mile basis would not be fair because of the greater risk that employees on local trains are subjected to than are those on through trains. The employees on the through trains ride directly over the road, and the chances of injury to them are pretty slight. On the other hand, the employees on the local trains are not only engaged in switching at the stations, cutting cars out of and setting them into trains, but they handle such a large amount of package freight, loading and unloading it, and the opportunities for personal injuries, more or less service, are very, very much greater than in the case of the through trains.

That is one item that occurs to me as upsetting the train

mile basis for dividing that particular expense.

Q. What is the next item?

A. The next item is "Loss and Damage-freight."

The same difficulty would apply there, because of the much greater opportunity for loss from pilferage and improper handling and damage to the packages handled in local trains, because the cars are opened at every station and the freight is knocked down and handled; and if the train crews are careless before the train gets to the next station in many cases the freight falls down and is damaged.

That is the reason why, perhaps, this method would not be fair at But inasmuch as an attempt has been made, apparently, to divide this on the basis of actual claims paid, that item may not be so very important. I think perhaps the State's accountant has been

nearer right in that than in any other item I have seen.

Q. Mr. Ward-

A. Pardon me, but I wanted to speak about the general situation as it is reached up to this point. (It seems to be the case that up to this point in this exhibit the endeavor of the State's accountants has been to determine what is a proper method of distributing train and car costs between local and through trains. And when they have done that, according to the method adopted, they undertook by taking into account the tonnage of state freight handled on

4344 local and through trains respectively, to ascertain the ton mile cost of handling such freight; and have assumed that the cost of handling a ton mile of state freight on a local and on a through train is the same as that of handling a ton mile of inter-

state freight on the same train.

This assumption, in my opinion, is an erroneous one. It fails to recognize the fact, which I endeavored to point out in my previous testimony in this case, that the terminal handling of short haul intrastate freight is much more expensive per ton mile than of long haul interstate freight. Many more car miles are required to handle a given number of intrastate, short haul ton miles, than the same number of interstate, long haul ton miles. A much larger amount of property and facilities is required to handle such a quantity of intrastate, short haul, ton miles, than of interstate, long haul, ton miles,

By this I mean that the station facilities at the local stations through any state, so far as my observations go, are when measured by the ton miles, used to a very much greater extent than is the case with other business passing those stations, or even originating at or destined to those stations.

In order to make myself clear on this point, I might explain that a ton of freight of a given kind received at a country station, will

not cost any more to unload from a car and deliver to a consignee, if it has originated in the State, than if it has originated in another State.

But when the cost of handling that ton of freight is divided by the ton miles applicable to it, it makes a much heavier charge per ton to the short haul, intrastate ton, than to the long haul interstate ton.

Q. Mr. Ward can you give an instance that will illustrate the

idea you mean to convey there?

A. I might illustrate it by saying that I suppose the people of Arkansas, as in other States, buy a good deal of merchandise from mail order houses like Sears, Roebuck & Co. and Montgomery Ward of Chicago; let us imagine, if you like, the purchase by a man in a country station twenty five miles South of Little Rock; say he buys a ton of merchandise of Sears, Roebuck & Co. and it is carried down to his station and is delivered to him from the same car and at the same time as is a ton of the same kind of freight which he needed in a hurry and purchased in Little Rock. The station expense at the delivering station, in each case, is exactly the same; each operation is precisely the same as the other. But when you measure it by the ton miles, you have twenty five miles to apply to that ton which came from Little Rock, and approximately six hundred miles on the ton that came from Chicago; so there is perhaps twenty four times

more chargeable to the state ton than to the interstate ton, in

4346 that station expense.

Continuing in that statement of the matters that were over-looked in this assumption of the Sate's accountants, I would like to say that the various allowances made by the State's accountants, as shown in detail in exhibit K—such for instance as extra mileage for engines on local trains on account of station switching; extra and excess cost of repairs to yard engines; extra cost of repairing cars running in local trains; extra wear and tear on road-bed and structures through operation of local trains, etc., are to a large extent made necessary by the handling of this short haul intrastate business.

In fact, the assumptions made by the State's accountants omit some of the most essential factors, which in my opinion, go to make up the large difference between the cost of handling the two

classes of business.

Further, if any attempt were made to accurately assign a division of operating cost as between state and interstate business, the accounting expenses by reason of the employment of additional men to record the facts would still further accentuate the already excessive cost of handling state over interstate business.

Q. What effect has the long and the short haul—what difference exists between state and interstate freight, on the cost of handling

those two classes?

4347 A. I think that effect is illustrated by the example I gave you of that ton of freight from Chicago as compared with one from Little Rock, going to the station twenty five miles South of Little Rock. The interstate long haul ton has so many more miles to divide into that expense that the expense per ton per mile is very much less.

In the case in point my recollection is that the average haul per ton of state business in Arkansas is seventy miles, and of the interstate per ton two hundred and twenty four miles. Both of those are the number of miles in the State of Arkansas, as I understand it. Whereas, as a matter of fact, the interstate and intrastate freight must move a very considerably greater number of miles than two hundred and twenty four. So that proportion of three to one does not actually hold good as applied to the whole situation.

Q. Does the addition of fifty per cent to the car miles of local trains for switching at stations, as made under the head of "Maintenance of Way and Structures" provide for the actual expense of state over interstate business, grow out of the fact that the larger

part of the switching is chargeable to state freight?

A. It does not. It seems to undertake to determine the cost of handling cars in local trains as against the cost of handling cars in through trains, but does not touch at all the cost of handling

4348 freight in those trains, as between state and interstate.

Q. Would that allowance as made there as between the two classes of trains, cover the extra cost of handling the state freight over the interstate?

A. No, sir, in my opinion it would come very far from doing it.

Q. There is a similar allowance made under the head of "Maintenance of Locomotives." They have added fifty per cent to the mileage of yard locomotives to provide for possible extra maintenance due to vard service; and fifty per cent to the mileage of road engines used in local service, to provide for switching in local serv-The same is true of that, I suppose, is it, Mr. Ward?

A. Yes, sir.

Q. Allowance is made for starting and stopping and terminal handling: Is there an added element of extra cost on state over interstate freight that is not provided for in that allowance between

local and through trains?

A. It seems to me that one great difficulty about the State's plan is that an attempt has been made to determine the cost of handling a local train as against a through train. In determining that, and in trying to determine it, a great many assumptions have been made which I cannot accept as being correct. But, after that is done,

there still remains a number of very important factors which

are not taken into account at all.

If the State's method of determining the cost of the local as against the through train worked out right, there still remains to be determined the question of how much more it costs to handle the state or short haul freight in that train than the interstate or long haul freight in that train. In fact, there is practically another question.

Q. I believe, if I remember aright, you testified when you were on the stand formerly in this case, that in your opinion it costs five times as much to transport state freight as interstate freight.

A. I expressed that as my opinion as applied to this case.

Q. Are there any facts developed in this Exhibit K (and the other exhibits filed in connection with it for the purpose of developing the theory upon which the State is seeking to divide these expenses) which would change or affect your views in that regard, Mr. Ward?

A. I have given the subject a good deal of thought from time to item, because it has come up not only in this case but in other States, in which I have been interested as a railroad man; and the more I think about it the more I am inclined to think that estimate is low and not high, as to the excess cost of state over interstate.

The conditions, as they seem to me, point to the fact that I have state it in quite low terms, and not at all too high. 4350

I certainly have not modified my opinion as to its being as

much as that.

Q. Mr. Ludlam, who is one of the State's accountants, and whose firm prepared these exhibits you have been discussing, testified that the extra expense as developed by the method of division adopted by the State was eighty seven per cent: how do you account for the difference between the eighty seven per cent developed by the State under its method, and the views expressed by you, and to which your attention was called a moment ago, that it costs five times as much?

A. It is due in part to the erroneous assumptions that have been

made here, in undertaking to divide the cost of local train service or through train service; and in part to the omission of those other

elements to which I have referred.

My opinion is, as it was before, that this is not a matter which can be determined by any proper system of accounting. It is one very difficult of solution, and the closest approach to an accurate result in the matter can be secured, in my opinion, by getting the views of operating officials who are in contact with this kind of work every day of their lives, and who are watching it, and who

have had every opportunity to see under what conditions the

various classes of traffic are handled. 4351

Q. I want now to call your attention to Exhibit M filed by the State, which contains their scheme for dividing the expense of transporting State and interstate passengers.

You will observe that the State has adopted a different method of making that division, and seems to divide it between the different

classes of cars, without regard to trains.

They state in the opening paragraph of the exhibit:

"As nearly all passenger trains on the St. Louis, Iron Mountain & Southern Railway do a local business, we have not considered it necessary to make any division of expenses as between local and through service. Our statement of operating expenses covers the six months ended December 31, 1907, and the division of expenses is between coach and Pullman service, interstate, intrastate, mail and express business. In general, the expenses are divided on a car mile bases, the mileage used being that of October, 197."

They state as a reason for that, that the state and interstate passengers are carried on different kinds of trains. The same is true of state and interstate freight, as between local and through trains.

I would like to know what you think of the consistency of making a division of expenses of freight traffic, as they did, on the basis, of the relative expense of the local and through trains; and of abandoning that method when it comes to dividing between state and interstate passenger business, and adopting the 4352 method outlined in what I have read you from their exhibit.

A. The change in the method does not seem to be consistent, inasmuch as there is approximately the same relation between the local passenger train and the through passenger train, as there is

between the local freight train and the through freight train. The local passenger train is used for doing the short haul business and, as I believe I stated in my former testimony in this case, there is a lot of expense attached to the handling of local passenger service which cannot be measured on a car mile basis. passenger train has to have in service for a given number of train miles a very much larger number of passenger cars, as those local trains runs practically in daylight only, and are tied up at night.

On the other hand, the through trains run day and night and make two or three times as much mileage daily, throughout the

year, as do the cars in the local service.

So I think the objection to this method of determining the cost of handling the state passenger traffic is about as I have stated it

just now, due to the fact that they have overlooked that element of the short haul and long haul feature in the carriage of these pas-

sengers, and in the use of a greater amount of equipment; also the necessity for a greater use of the station facilities in the State for the state passenger train in the case of the

through passenger.

Q. Take up the first division in that exhibit, "Maintenance of Way and Structures": You have already expressed your views as to the feasibility of dividing that expense as they have attempted to do. and have given your reasons therefor. I suppose that will apply here, but I want to call your attention to the manner in which they have divided it between coach, Pullman, mail and express service, on a car mile basis.

It is a conceded fact, I think, that as a rule Pullman cars are not hauled on local trains; also that the larger part of the state passengers travel on local trains and of the interstate passengers on through

trains.

A. That is probably the case.

Q. The point I want to call your attention to is, is it proper to put those cars on an equality for the purpose of determining the relative cost of the different classes of passengers hauled in those cars, when some of them are not used, and if any at all but in the slightest degree, on one class of trains.

A. You are speaking of maintenance of way and structures?

Q. Yes, I am speaking of the expense for the maintenance of way and structures, which of course is affected to some extent by the passage of these cars over the road, and the purpose of this is to divide that expense between the occupants

of the cars. A. If I understand this correctly, a car in a passenger train, no matter what its class, is counted as running a mile on equal terms with every other car.

 Q. That is correct.
 Λ. That seems to me to be wrong, because the cars differ very much in their weight, in their length, in their value, and in the amount of attention they need in order to keep them fit for the business in which they are engaged; and I do not see how it is possible to divide the expense of handling the state or the interstate passenger by any accounting method; and certainly not by this one which classes all cars as the same. They are very different units.

Q. Under the general heading of "Maintenance of Equipment" the first sub-division is "Locomotives": if you will read that exhibit you will see the manner in which the division has been made thereon, and I would like to know how that impresses you.

A. As I read that it means that the locomotive expense is divided into the total number of cars that the locomotive handled, counting each Pullman, coach, mail and express car as the same kind

of a thing, while it is not the same but is entirely different; they are entirely different units.

Q. By this method they are divided on a car mile basis, are they not?

A. Yes, sir, For instance, a Pullman car is very much heavier

than an express car, and to haul it the engine has to work much

harder and it is required to burn very much more coal.

If there was a way of dividing it between cars, they certainly should not be divided equally between the different kinds of cars, but more consideration would have to be given to the difference in weight and also the difference in length. A long car hauls very much harder than a short car-that is, of a given weight.

Q. The next item is "Passenger train cars"; you will find on the exhibit a short statement of the method of division. That is divided

between coach, mail and express service.

A. That seems to be open to the same objection. It assumes, I think, that each car mile of the three classes named is of equal

character to the others; whereas that is not the case.

The coach miles, for instance, as applied to a passenger train car expense would be very much more expensive than a mail or express car, being of an entirely different character and having to be maintained up to an entirely different standard.

4356 Q. Does not maintenance of passenger cars also involve repairs rendered necessary by injury from starting and stop-

ping?

A. Yes, sir.

Q. What effect would that have as between the cars hauled on the

local and the through trains respectively?

A. Such effect as starting and stopping has, and it is considerable-would be very much more in the case of the local than in the case of the through trains, because the local trains stop much more frequently than do the through trains. The through trains run perhaps forty or fifty miles before making a stop, while the local trains stop at every station, which are perhaps not more than five or six miles apart.

Q. If that is true the local trains on which the local passengers principally travel should be charged much more than the passengers

on the through trains.

A. Yes, sir. Q. Look down there on that exhibit at "Traffic Expenses": you will see that those expenses are divided between intrastate, interstate, mail and express business on a gross earnings basis:

The last two items in the tabulated statement of earnings and percentages based on earnings, you will find 11.63 percent of 4357 that class of expense charged to mail and 7.70 percent to ex-

press, making in all 19.33 percent of the traffic expense

charged to mail and express:

Is there any service rendered by the agencies that incur that expense, in working up business for mail and express, to which you could charge that?

A. Nothing appreciable.

Q. What do you think of that basis of division?

A. It puts in a proportion of expense—well, I am not sure yet that I understand that.

Q. Read that carefully, Mr. Ward.

A. (After reading.) I see it now. It divides that 19.33 percent of that total expenseQ. It charges 19.33 percent of the total traffic expenses to mail and express.

A. That is wrong, because there is no appreciable expense in

connection with the solicitation of mail and express business.

Q. The next heading is "Transportation Expenses". Under that general heading is the sub-heading "Station Expenses": examine that, Mr. Ward, and give us your views in regard to the basis adopted there for dividing those expenses.

A. The exhibit states as follows:

"Station expenses divided between intrastate and interstate business on the basis of the number of passengers of each class handled, after making an allowance of about ten cents per day for the handling of mails at certain stations; and as-

suming that each intrastate passenger makes use of two terminals, and each interstate passenger makes use of one terminal, as follows:"

Q. Under their method they have charged intrastate with \$52,377;

and interstate with \$4,678. That, apparently, is 91.8 percent of station expenses chargeable to intrastate business.

-. I don't know whether that would be accurate or not.

And I do not quite understand this allowance of "about ten cents per day for the handling of mails."

Q. It is a small matter, but the point to which I wish to call your attention is that they have not made any exclusion of trans-state passengers; they have made no provision for that.

A. Those trans-state passengers of course do not use the station

facilities at all.

Q. To diverge just for a moment, for the purpose of illustrating the matter, would not the same principle exactly apply to transstate freight?

A. Yes, sir.

Q. Of course this cannot be far wrong, but I want to test it as to the correctness of the basis upon which it is predicated, and for that reason I am calling your attention to small matters like this.

A. It omits consideration of that fact, there is no question

4359 of that.

Q. The next item under that heading is "Yard and Train Expenses", which you see they have divided between coach, Pullman, mail, and express service, on a car mile basis; charging the coaches and each of them with a percent that is set out in the table there.

Mr. Ward, the following items are included in that account, which

covers yard and train expenses:

For yard and train service the total expense is	\$549,069.76
Of that, yard service is	15,124.00
Train and engine men	182,772.00
Fuel and other supplies	135,712.00
Care of passenger cars	50,600.00
Engine house expense	46,499.00
Clearing wrecks	17,879.00
Injuries to person	56,128.00
Damage to stock and property	39,624.00
Miscellaneous	5,088.00

You will observe that the same expense is charged to passengers on all these classes of cars, on local and through trains, state and interstate; and it includes the wages of crews and engine men, fuel and supplies, and the care of passenger cars; and divides that between local and through, state and interstate, and these classes of

cars to which your attention has been called. 4360

Q. What are your views about that.

A. It is open to the same objection that applies to the other

items in passenger classification.

In particular, for instance, injuries to persons, is an item which probably could have been accurately divided, but an attempt to divide it on a car mileage basis, including all kinds of cars, is manifestly wrong. And because, as I have stated before, the cars in local service are subjected to a different kind of treatment in service than are the cars of through trains.

The inclusion of those items of yard service, wages of train and engine men, fuel and other supplies, on a car mileage basis, is wrong. It is unfair, and charges too much to the through service, and not enough to the local service, and to the local trains on which

are carried the state passengers.

Q. The care of passenger cars includes, I suppose, the cleaning

of them, and things of that kind?

A. Yes, sir. I think I called attention to the fact in my former testimony if not today, that those cars in local service require a great deal more attention in the way of cleaning than do the cars in through service, because they are cleaned and attended to at the terminal each day; and in addition to that the coach requires a great

deal more attention than does a mail, baggage or express car. 4361 They are entirely different units, and to count any of these things on a car mileage basis is wrong. It is comparing unlike things and classifying them all on the same basis.

Q. The next item is "Loss and Damage-baggage": that expense is divided between intrastate and interstate business in proportion to the gross earnings of each:

In view of the different characteristics of the service incident to baggage on local and through trains, would you consider that a

fair division?

A. I should consider that was an item that could be definitely located by an accountant, and that he would not have to divide it on the basis of any percentage, if he sought to secure an accurate division.

4362 Cross-examination of Mr. Frank Ward.

By Judge HILL:

Q. Mr. Ward, one of the questions asked you yesterday (Page 607) was:

"It is assumed that the state presented this division of expenses upon actual conditions and they advance this scheme as an apportionment based on actual facts:"

You have gone through the exhibits and I ask you if you do

not recognize the fact that they have attempted—whether successfully or not I am not now discussing—to use actual facts where they could, and then use what they considered the nearest factor where they could not get actual facts. I am not asking you whether they have successfully done that or not, but merely the effort that has been made there?

A. As nearly as I can tell by looking at the exhibits alone, and without seeing the testimony of those who put them in, it seems to me they have attempted to reach actual facts by methods with

which I cannot agree.

4363 Q. I understand that. I am not asking you about your agreement but I ask you if it is not a fact that the exhibits show that they are using the factor which they evidently considered reached more nearly the facts themselves.

Take Maintenance of Way, no one claims you can get the actual facts on that, but what factor would most nearly approach the actual

facts: is not that the case?

A. As I say, I think they have tried to do that, so far as I can tell by the exhibit, without the explanation that undoubtedly went with the exhibit when it was presented, which would undoubtedly make that clear.

Q. I will read the explanation made by Mr. Wharton at page 506.

He said:

"From the reading of the testimony in the Missouri case and my understanding of the purport of that testimony it appeared all the time that the difference- in cost of state and interstate business were mainly differences in cost of local and through trains. The witnesses all seemed to testify that way and we determined that if it was possible we would work up statements showing the cost of local and through business and after getting that cost we would ascertain in the best manner possible the cost of state and interstate business carried in the two classes of service; in that way getting away from any question of theory, but getting down to an application of the facts and of the testimony given in that case, and subsequently given in this case."

Does not that bear out the suggestion made, whether they have been successful or not I am not now discussing; but that was the effort, to reach the nearest common factor where the actual facts were not known?

A. I think they have tried to do that.

Q. It is not a matter of actual facts because we all recognize that you cannot get the actual facts on some of these matters;
 4364 but to get the factor that will most nearly approximate the actual facts: is not that the case.

A. I think that is what they have tried to do.

Q. I am not discussing with you now the scheme but I will discuss that with you later, whether they have done so successfully or not.

A. Yes, sir.

Q. Taking up the first item of Maintenance of Way, Mr. Wharton said, at page 517:

"Personally I think the expense should be divided on a gross ton mile basis which includes the weight of equipment and the weight of the product hauled, but this is the best information we had at hand to make a division." (Meaning the car mile.)

"Q. You think if you had the information the other way you

would get a little closer to the facts, is that it?

A. I believe so.

Q. This is the best method that would most nearly represent the actual facts that were available.

A. Yes, sir."

I will ask you what you think of using the car mile as a factor to determine the cost of maintenance of way as between local and through trains, where there was no data by which they could get the gross ton mile?

A. You refer now to maintenance of way expense? Q. Yes.

A. I do not agree that it can be reached by either method.

One of the main difficulties about dividing maintenance 4365 of way and structures expense on either a ton mile or a car mile basis is the fact that a very considerable part of the cost of maintenance of way and structures is not caused by the movement of the traffic over the road but by the elements and I consider that either method would be very unsatisfactory and likely to be very far from the actual facts.

And besides that, the effort in this case is to determine the cost of handling freight in the local train as against the cost of handling freight in the through train; and that is a question almost of another nature than the determination of the cost of handling state

versus interstate traffic.

So the elements of difference are so great and so numerous that I would not consider either method as approaching accuracy in the

solution of the problem.

Q. Do you think the fact that a large part of the expenses of maintenance of way are caused by weather conditions and natural decay, should affect the use of a factor, when the factor represents the use to which that property is put?

A. Well, the objection to using a factor of that kind is the fact that in this particular case, for instance, we have got to take another question into consideration; and that is the uses to which the prop-

erty is put, other than the handling of freight.

For instance, there is passenger use and it opens up an entirely new question as to how much of certain parts of the main-

4366 tenance is properly chargeable to passenger service.

You take the fences and the necessity for keeping the track up to a condition which will give the maximum comfort to the passengers, aside altogether from the question of safety, which would be the only question involved in the handling of freight trains.

I believe there is another question involved, that would throw doubt upon the use of the car mile basis in maintenance of way, either local and through or state and interstate.

Q. What is that?

A. That is the question whether maintenance of way and structures expense should not be divided in the same way as either general or unlocated expenses.

Q. Is it not a sound proposition of accounting that you use the

factor that would most nearly represent the use of the property?

A. If the same factor must be used, I should say, yes.

Q. How much of the maintenance of way expense do you ascribe

to weather conditions and how much to traffic?

A. I have not made up my mind definitely as to what proportion should be attributed to weather conditions. Railroad men differ a good deal on that subject. I have seen opinions to the effect that 90% of it was due to deterioration on account of the elements, and others down as low as 75%, or even less.

4367 My personal opinion is toward the lower figure.

Q. Is not this a sound proposition: he was asked along the same lines you have just been asked—was it not a fact that a large part of that was due to weather and natural conditions, and then was asked would that affect the basis: and he said it would not—is the substance of his testimony. And then occurs this, as a reason why they should use the factor:

"Because the primary object is to keep the tracks and roadway in condition for the operation of trains. We have to keep up the tracks and roadway for the trains to run over, and naturally whether the expense is caused by the train itself or is necessary so the trains may run over the tracks, it seems to me it would naturally follow the use made of the track."

Isn't that sound?

A. I think it is sound with the exception that it seems to make the assumption that the whole use of the track is for the purpose of running freight trains.

Q. I do not so understand it. He is speaking generally now, Mr.

Ward.

Then when he comes to a subdivision he does make that use of it as between different classes of freight trains.

A. If I understand what you read of his testimony before, he was

arguing in favor of the use of the gross ton mile?

Q. That was on freight trains. But I am speaking from the detail to the general proposition.

Is not this a sound general proposition:

"The freight and passenger trains that you have to keep up the tracks and roadway for the trains to run over, and naturally whether the expense is caused by the train itself or is necessary

so the trains may run over the tracks, it seems to me it would naturally follow the use made of the track," would be a proper factor?

Is not that true?

A. I think that is true, assuming all the time that it must be divided into the business that moves over the track. I do not feel sure that is right. I do not really feel positive that it is not, but

I do not feel sure it is right. I think there is room for a great deal of argument for dividing that expense the same as general expenses.

Q. I understand that and I think a great many witnesses on this side and also on the opposite side of the case have taken that view.

But as I understand you, speaking generally, this is a sound proposition?

A Ves sis sist

A. Yes, sir, with those assumptions I have mentioned.

Q. Coming to the division between freight and passenger, what do you think of the train mile as a proper factor to determine that?

A. I don't think that is proper. It would depend a good deal on the purpose for which we are undertaking to make the division. It may be for the purpose of simply making a comparison of a superintendent's performance of work on his own division, from month to month or year to year. On the other hand, it might be on a matter as important as the making of rates for freight and passenger. And if for the latter, a great deal more care would be needed to be exercised in order to make a fair division.

4369 Q. The latter is the object to which this litigation reaches, of course, to ascertaining whether the intrastate rates are compensatory. With that object in view and approaching the problem in this first step, maintenance of way, is it proper to divide that on the basis of train mile, as representing the use of the way?

A. My opinion is that it is not.

Of course, my opinion differs so materially from those of the accountants for the state in this respect, that I do not think the use of any of these factors, or any method that has been proposed heretofore, can really satisfactorily solve the problem. I wish it could, but I do not see that it can.

Q. Taking this as a basis I want to ask if I correctly understand

your position:

"Maintenance of way and structures: This account includes all repairs due to maintenance of way and track, bridges, trestles, fences, culverts, etc., also material and supplies used in repairing same and supervision. This expense is practically all localized and is charged to the state in which the expense is incurred. The total charge to maintenance of way and structures is divided between freight and passengers upon the basis of the number of train miles in each class of service."

What do you think of that method of division?

A. That, as I understand it, is a method of division prescribed by the Interstate Commerce Commission. Speaking as an operating man I would hesitate very much to accept that as a basis upon which to determine the question we have under discussion now—that is,

the cost of handling state versus interstate business.

4370 I think it omits a good many items that should be considered in trying to solve that particular problem. I do not think that division had in mind any such proposition as that we are discussing now.

Q. If that is used as a basis here to start a division of expenses,

you consider it unsound?

A. Yes, sir. Q. Mr. Ward, I notice all through your testimony you object to using the statistics compiled on the October movement: and as I understand your testimony, it was for two reasons, primarily because you could not take any one month as representative of the business; and, secondly, because you thought October was probably a heavier movement than the other months: is that correct?

A. Yes, sir. Q. You are not familiar with the actual conditions of affairs in Arkansas, I believe you testified in your previous testimony?

A. That is true.

Q. I want to call your attention to the way those figures were put into this case:

Mr. Kimbell, the Assistant General Auditor of the Cotton Belt, with whom you are acquainted, I presume, testified as follows:

(Page 80 Vol. 1).

"Q. Mr. Kimbell, did the operating officers of the St. Louis Southwestern Railway Company make a test at any time after this litigation was instituted, for the purpose of ascertaining the relative cost of conducting state and interstate transportation? If so, I wish you would state what was done in that respect?

4371 A. A test of that kind was made under my direction.

Q. What period did it cover.

A. The month of October, 1908. The temporary injunction was granted in St. Paul on September 3rd, and the month of October was selected for the purpose of this test, on account of it being the first full month following the injunction. October is rather a heavy month, but for a test of this kind, in my judgment, it fairly represents the general conditions"

And then Mr. Moore asked him this question: "Q. Would it represent, fairly, a year's business?

A. I should say. It would represent relatively, the difference between the two classes of traffic."

He was asked further about that by the state's counsel, as follows: "Q. Do you think that one month would fairly represent the

business of your line for a year?

A. I think for the purpose of a test of that kind, determining the relative difference between the two classes of freight, that one month is perhaps as good as another.

Q. Why did you select October?

A. As explained, it was the first full month after Judge Vandevanter granted the injunction. He granted it in September, September 3rd; we wanted to make this test as soon as possible, so we selected the first full month.

Q. In your judgment, a test of this kind, made for the month of October, would fairly represent the operations for a year, or for a series of years.

A. I should say so."

Q. I also want to call your attention to the testimony of Mr. Doddridge, who has been the General Manager of both of these (Page 43 Vol. 2). roads.

Mr. Doddridge was asked this question:

4379 "Q. Do you think the test of one month's operation would

be fairly representative of the entire year?

A. I think in this case that it would be representative as to the relative proportions of the different kinds of business, for the reason that the month of October, 1908, was one of the heaviest months of the year, and considerably above the average twelve months, probably.

The main purpose in making this test was to determine the average relation that one class of business bore to the other, and if the business of the road was lighter in a subsequent month, the chances would be more than likely in favor that the relative proportions

would remain pretty near the same."

In view of this testimony, Mr. Ward, would not you feel like accepting that month as a fair basis, on the testimony of the Assistant General Auditor of one of the roads, and by a gentleman who had been general manager of both the roads.

Mr. Moore: You should be further informed, Mr. Ward, in re-

gard to the test that counsel calls your attention to:

It was made upon actual ascertainment from the actual movement of the freight carried on each class of train; and was not ascertained upon the relative amount of each class of tonnage in

local trains only as in the Iron Mountain case.

A. In the case of the Cotton Belt, I do not know just what the test was and I cannot answer without that information, as to whether it would be likely to be a fair method. But, no matter what it was, in my opinion, it is a thing that cannot be measured out by figures and facts, even though you put men on the trains to watch every movement.

As to Mr. Doddridge's testimony, the only thing I can

say about that is that I totally disagree with him.

Q. How about Mr. Kimbell, do you disagree with him? A. In the first place, I do not know what his test was-yes, I do

disagree with him because it cannot be done that way.

I might answer further that in a case not conducted under my charge but of which I have heard, Mr. Gray, the Comptroller of the Northern Pacific Railway, I think some three or four years ago, thought he would make a test and see if he could reach a basis.

He put auditors to ride trains on one of his divisions, and they watched the movement of every piece of freight of all kinds, and undertook by all the means that they could find to make a separa-

tion.

They were dissatisfied with the results, because they were not sure

of its accuracy.

My recollection of the case is, that as nearly as they could figure it out the cost was eight to thirteen times as much for state as for interstate business.

That was in Minnesota.

Mr. Gray wrote me two or three weeks ago, in reply to an inquiry I made to him about it, that thinking the matter over since that time they had reached the conclusion that the proportions would be very different and that the state would cost more than as

indicated at that time. The net result was that they could not tell accurately from the test what the cost was.

In other words, the test did not agree with their opinion?

A. No, sir. They tried to find a way, in the hope of being able to submit something to the state—as this case was coming up—that would be satisfactory. But they were not satisfied that the facts could be ascertained by those methods.

But, so far as the facts showed, they showed the cost of from eight

to thirteen times more for state than for interstate business.

Q. It disagreed with their opinion?

A. Yes, sir. And as I understood Mr. Doddridge's testimony I

disagree with him entirely.

Q. Mr. Kimbell's was the same test. It was made by Mr. Kimbell, but I believe the testimony shows it was made at the instance of Mr. Doddridge.

What I have read to you has been relating to the same test.

A. So far as I understand it, I cannot agree with them.

Q. The statistics on the Iron Mountain Railway were put in by the Iron Mountain, but I do not believe they had been analyzed as between local and through, as they were on the Cotton Belt:

The State's accountants have analyzed them substantially as was

done with the Cotton Belt statistics.

4375 Mr. Moore: The statistics contained in Exhibit 26 in this case, to which counsel refers, which gives the total amount of state and interstate tonnage taken in the Auditor's accounts from the waybills, was prepared at the request of the state's counsel in a conference held in the Judge's Chambers during the progress of this case.

I state this in order that there may be no misunderstanding as to

how that came into the record.

Judge Hill: I did not so understand that. I remember it was given to us as the result of such a conference, but I understood it had already been prepared by the railroads and certainly the state's counsel did not ask for it to be introduced. Isn't that correct, Mr. Johnson?

Mr. Moore: Some of the data was prepared, but that data was prepared as the result of a conference in Judge Trieber's chambers.

Mr. Johnson: In the Missouri Case such a statement as that was called for by the railroads and it was our understanding that it would be required in the Arkansas Case: and we worked it up for that purpose.

In Judge Trieber's chamber, at a conference between yourself and Colonel Moore, when Mr. Wharton was present, Mr. Wharton asked for three months of these figures and we told him we had prepared them for one month for his convenience and did not feel we should

be called upon to prepare them for three months. Judge
Trieber then said we should not be required to prepare those
figures.

Mr. Wharton finally agreed that the figures for one month would answer the purpose.

For our own purpose, in presenting this case, we would have no

use for that exhibit. We believed that rather than check over the state exhibit it would be better for us to work that up ourselves, because it took us a considerable time to check their statement in the Missouri Case.

Judge Hill: You did prepare these and had them prepared

before Mr. Wharton ever requested them, did you not?

Mr. Johnson: That is right.

Judge Hill: And you introduced them yourself, and not at our

request?

Mr. Johnson: Only to this extent: that it was the statement compiled for this case and if we had not introduced it we felt you would call for it, just as was done in the Cotton Belt Case.

Judge HILL: But we did not call for them?

Mr. Johnson: It was not necessary, because we had filed it. And in the meantime we had turned over a copy to the state expert.

Judge HILL:

Q. Mr. Ward, irrespective of the history of the matter, that one month's business has been introduced by the railroad and it has been analyzed by the state accountants. I have read you

the testimony of the witness on behalf of the railroad, as to another statement representing the one month's business and as I understand from your testimony, you disagree with these gentlemen that that would be fairly representative of a year or a series of years?

A. Yes, sir, I do.

Q. I believe you stated, probably more than once in your testimony yesterday, that after you determined the cost of the local and through freight trains, and after you determined the proportion of freight upon each of those trains, the problem of working out the expense between state and interstate still remains to be solved?

A. Yes, sir.
Q. That is your position about that, is it?
A. Yes, sir.

Q. I want to read you from the testimony of Mr. Doddridgeyou know Mr. Doddridge, don't you?

A. I have just met him. I cannot say I know him.

Q. I will state for your information that Mr. Doddridge has been General Manager of both Iron Mountain and the Cotton Belt Railroads?

A. I know in a general way what his experience has been. Q. At page 57 of the record in this case, the following occurs:

"Q. Your analysis of the different classes of freight, interstate and intrastate, is based on your experience and knowledge of the operation of the different kinds of trains, local and through, 4378 and the proportion of intrastate traffic carried on each

A. Well, the local train is simply one of the incidents of the extra cost. It is not the whole reason. It is one of the circumstances and conditions of the handling of the short-haul business of the railroads.

Q. I think I have allowed for that in this question, if you will consider it more fully.

Previous question is here read.

A. Yes, sir.

Q. So we will understand terms correctly, Mr. Doddridge, in talking to each other. I will ask you if there is any such thing as an intrastate train; that is, an intrastate train which carries exclusively intrastate traffic?

A. There is no such train that I have ever heard of.

Q. There may be an intrastate train, but for the purpose of our inquiry it carries interstate traffic, and has to be considered relatively as to the traffic that is upon it.

A. It carries all kinds of business.

Q. That is true also of all trains, isn't it?
A. Yes, sir.

Q. Intrastate or interstate or transstate?

A. Yes, sir.

Q. It is a question of the proportion upon each? A. It is a question of proportion upon each."

Q. Now, in further explanation of that view he says—or, rather, this testimony was read to him from the Missouri Case: I wish to

read this statement made in answer to a question:

"So far as the particular freight is concerned, carried on those particular trains, there would be no greater cost in transportation for interstate freight than state freight, except the terminal charge.

In order to ascertain the results correctly, you would have 4379 to take into consideration the amount of state freight that is carried upon that train, as applied to the total state freight carried on

the other train.

In other words, what I mean to say is, we have to take into consideration all the trains and find out what relation the state freight bears to the whole."

Then this question was asked him: "That is a correct analysis, isn't it?

A. Yes, sir, I think so."

Do you agree with this statement of Mr. Doddridge?

A. I don't believe I draw the same inferences from Mr. Dodd-

ridge's statements that you seem to.

If I understand you correctly, your idea is that Mr. Doddridge's statement was that with the exception of the terminal charge the cost of handling state business on those trains is the same as the cost of handling the interstate business?

Q. Yes, that is my understanding.

- A. I would not draw that inference from what you have read.
- Q. In other places he does state it, frequently, that that is his A. That is not my view.

Q. That is what I was wanting to ask you, if that is your view.

A. No, sir, it is not.

Q. You knew Mr. I. G. Rawn in his lifetime, I presume, did you not?

4380 A. Yes, sir.

Q. He testified in this case heretofore the same day you

did. I want to read you from his testimony at page 368:

"Q. What relation is there, if any, between local and through traffic, and state and interstate traffic? I will be glad if you will explain what, in your experience, you have found to be, if any, the relation that exists between the two classes of freight traffic?

A. For the purpose of determining the cost of operation of transportation, the question of state and interstate traffic is not the method of consideration. The method is that of through and local

business."

Do you agree to that? A. I do not because Mr. Rawn has not completed the statement,

His answer omits a good many things which would be necessary to complete the answer, as I would make it; and, therefore, I do not agree with him. It is only a partial statement.
Q. Mr. Rawn further stated (page 383) going a little bit away

from the proposition he is here discussing:

He was asked how he would divide the expenses between the local

train and through train and he answered:

"One of perhaps the most accurate methods of determining the division of costs, if that is proper, is the ton miles. That is one of the very large elements and methods of determining the cost of the through freight and the local freight; on the question of maintenance and many other things that would otherwise not be determinable.

Q. What besides maintenance? A. Maintenance of equipment and maintenance of way."

Do you agree with Mr. Rawn's views on that subject?

4381 A. No, sir.

Q. Mr. Rawn further stated (Page 366):

"I do not consider that there is any material increase in cost in maintenance of cars in local freight business and through freight business."

What do you think of that proposition? A. I think it is very far from being correct.

Q. Then he takes up the question of locomotives. He says there is a difference on locomotives. But it was on cars I was calling your attention to.

You disagree with that?

A. Yes, sir.

Q. You were questioned yesterday considerably about various allowances that were made in the exhibits by the state, of 50% for extra switching and counting an engine 2½ times a car, and various other allowances, which you discussed in detail. I gathered from your answers with regard to that, that you were assuming that the accountants had arbitrarily assumed these figures.

I want to call your attention to the fact that the evidence here

shows that the accountant who prepared the exhibits had no first hand knowledge of these matters but informed himself and put those various allowances in on the basis of the best information he had. Those allowances have subsequently been sustained by the testimony of various witnesses.

Is not that a matter of fact in each particular case, to be ascer-

tained by actual conditions?

A. I do not believe that the facts can be ascertained by any known measure. Nobody can tell whether it is 50% or 40% or 60% addition. It is a varying quantity. It differs every day that the trains make a trip.

In particular reference to the question of the wear and tear on the track by a locomotive, that may differ so widely that one could

hardly express it in figures.

The conditions are such that I do not believe anybody is competent to lay down a definite figure that could be safely used as an

average.

Q. I understand that to be the case. That it is not attempted to be used as a general average, they have used these figures as applicable to these two roads; and then used the best judgment they were able to get as to whether a given percentage was the proper one for those particular roads.

Could not that be ascertained, not with mathematical accuracy but with a fair degree of accuracy, by men thoroughly familiar with

these different matters on each particular road.

Colonel Moore: I want to call attention of the counsel as well as the witness to the fact that there is no witness I recall now, who claimed to have had any experience in railroad operation, who has testified in regard to these matters to which counsel refers, any witness who had any knowledge of the local conditions on those roads.

They were gentlemen connected with railroads commis-4383 sions in Texas and Oklahoma, who had never been connected with operation on railroads in the state of Arkansas, and knew no more about the local trains there than the present witness, Mr. Ward.

JUDGE HILL: I wish to call attention to testimony given by Mr.

Wright, Traveling Auditor on the Iron Mountain Road.

Mr. Moore: Wright was not a practical operating man, but simply traveled over the road as Auditor and and testified from his casual observations from traveling over the road.

Mr. HILL:

Q. The question is, are not these matters which are local in their nature, to be worked out according to the best judgment of the parties familiar with local conditions?

A. I do not believe those matters are local in their nature. I think they are of general application and I have had a great many years of railroad experience and covered a great deal of the country and have observed how these things are done; and they are practically the same all over the country. My opinion is that these items cannot be accurately measured.

Q. While we are upon one of those matters which was an assump-

tion, I will call your attention to this question of the fuel.

It seems there were no statistics in existence for the last half of 1907 on the Iron Mountain Road by which the fuel could be ascertained. In the test on the Cotton Belt, for October 1908, the 4384 actual figures were worked up. That matter was presented

to Mr. Doddridge (Page 106):
"Q. Fuel, I presume, is another one of the chief items as you worked that up in the Cotton Belt case. Would the actual figures be worked up on fuel cost between local and through trains on the Cotton Belt, apply generally on the Iron Mountain?

A. I presume that those propositions would be applicable in a gen-

eral sense to the Iron Mountain, or it ought to be.

On page 107 he says:

"In a general way the test on the Cotton Belt ought to reflect the general average conditions."

Then this was asked him:

"Q. That is all I am after. The detail may be different. have taken that test on the Cotton Belt as a representative one and I want to know whether the proportions would be representative on the Iron Mountain?

He said:

"Yes, I used that largely as a basis for my calculation."

In view of that testimony from the gentleman who had been the General Manager of both those roads and worked that up and used those figures as representative in his various tests, would not you say it was right to accept those proportions as fairly indicating the general conditions?

A. Yes. I think so, in this sense.

If a locomotive handling a local train on the Cotton Belt Road consumes 3.5% more fuel per engine mile than the locomotive handling a through train, and Mr. Doddridge, who knew the conditions in both places, thought that would be a fair proposition on the

Iron Mountain, I should say it would be. But I would not 4385 draw from that the inference that 3.5% greater fuel con-

sumption should be applied to the ton mile. That would be an entirely different proposition and I do not understand from what you have read that Mr. Doddridge drew that inference. It was simply the percentage of fuel used per ton mile on local trains.

Q. Yesterday, as I understand you, in discussing the passenger proposition you criticised the state's accountants for not following the division of local and through on the passenger side of the ques-

tion:

Do you know how many local or through passenger trains there are in Arkansas?

A. I do not, no, sir.

Q. Have you any judgment as to the usual proportion of local and through passenger trains on a well managed railroad?

A. That would differ altogether with local business conditions and would differ very widely on any well managed railroad.

Q. That would be purely a local question?

A. Yes, sir. The only assumption I made on that was, there

were local and there were through trains.

Q. I believe the principal objection you had to this division was on the ground that the through trains would carry Pullman and the local trains would not?

A. I do not believe I expressed it that way.

The cars of all classes, mail, baggage, and express, coaches and Pullman, were all classed as the same kind of cars, so far as the use of these figures was concerned. And I objected

to that method of classification. There is a great difference between them.

Q. In what would that great difference consist, Mr. Ward?

A. One difference is in the different weight of the car.

Another difference is in the length. Length makes a great difference, with similar weight. The long car is more destructive to the road than a short one of similar weight.

Another difference is the attention that is required to maintain and repair cars of different kinds. Mail, baggage and express cars are very much cheaper in maintenance of operation than are the

coaches.

In addition to that, the coaches that are in the local service, stopping at every station, are more expensive in maintenance than are the coaches in through trains, which run through and are cleaned and attended to only at the end of long trips, instead of each day at the end of short trips.

Q. I believe the matter I had in mind was more in the question

than in your answer. At page 632 Mr. Moore says:

"It is a conceded fact, I think, that as a rule Pullman cars are not hauled on local trains; also that the larger part of the state passengers travel on local trains and of the interstate passengers on through trains."

You answered: "That is probably the case."

4387 I don't know where Mr. Moore got his concessions on those points.

Col. Moore: It is a matter of common knowledge.

I think that could not be controverted.

Mr. HILL:

Q. You think that is a correct statement, do you?

A. Yes, sir, I do.

Q. I wish to call your attention to an exhibit filed in this case by Mr. McPherson: you know Mr. McPherson, I presume?

A. I do.

Q. He was called upon to designate which of the passenger trains were local and which were through, and filed an exhibit, No. 46, showing the same.

That exhibit shows there are eight through trains and forty-eight

local trains in Arkansas-that is, during the period under consideration.

With that view, as to the difference in the traffic, only eight through trains and 48 local trains, would you say the expense should

be worked up between the local and the through?

A. I don't quite understand what is meant by saving there are eight through and 48 local trains. He does not give the relative train mileage of the through and the local trains?

Q. Yes, that is given.

A. Is it in that proportion—six to one?

Q. I don't know. That would take quite a good deal of

4388 calculation, in order to determine.

If you look at this exhibit perhaps you can get it. He designates the through trains and gives their run and the number of stops.

A. (After examining exhibit.) I do not think you could tell it by that. He does not show whether they are "daily" or "daily ex-

cept Sundays."

Q. These are all daily.
A. They run on Sundays as well?

Q. That is my information. Here he analyzes that and gives the stops of each one of the trains. And then he gives the run of each local train and the stops and the number of stops.

The previous question is here read to the witness as follows:

He was called upon to designate which of the passenger trains were local and through and filed Exhibit No. 46, showing the same. That exhibit shows there are eight through trains and 48 local

trains in Arkansas, that is, during the period under consideration.

With that view, as to the difference in the traffic, only eight through trains and forty-eight local trains, would you say the expense should be worked up between the local and the through?

A. I think so, if we are going to attempt to determine the relative

cost of handling state versus interstate passengers.

4389 Q. Why?

A. Simply because if you ignore the difference in conditions, you will reach an erroneous conclusion and make the assumption that the cost is the same on one as on the other.

Q. Don't you think in view of this situation, the cost would be

substantially the same on one as on the other?

A. No, sir, I do not.

Q. Wherein would be the difference?

A. Those forty-eight trains which undoubtedly handle the bulk of the state business would undoubtedly be more expensive in their operation; and the handling of the passengers on them would cost more than in the case of the passengers handled on those through trains.

Q. Don't you think from this exhibit here that the bulk of the interstate passengers would also be handled on the local trains?

A. That might be so. But it would not alter the fact that the

bulk of the state passengers were handled on those local trains; and those eight through trains undoubtedly handle a lot of people.

Of course, this is a question which really can be answered much more intelligently by a local man; and I would be a little afraid to be too positive in that opinion, as to the details of that, because of my lack of knowledge of local conditions.

Q. Let me give you another explanation of this; one of 4390 these eight through trains is a fast mail, that sometimes carries one sleeper and never carries a day car. I am not certain whether it carried a sleeper at the period under consideration.

Johnson might tell you. Mr. Johnson: It did.

Mr. HILL:

Q. It carried one sleeper? Mr. Johnson: Yes.

Mr. HILL:

Q. In further consideration of the fact I will state I calculated from a time card the number of sleepers carried on the local trains. My time card was of a little later date than the period under consideration and may not be exactly accurate, but it is substantially so, I think thirteen of the local trains carried sleepers.

In view of these facts, would you say there should be a distinc-

tion made between the local and through passengers?

A. Oh, yes, certainly, for this purpose.

Q. You do not think these facts would modify your views? A. No, sir.

Q. With the exception of one sleeper on those eight through trains, there were only seven through trains as against 48 local trains, and 13 of those 48 local trains carried sleepers?

A. In the comparison of trains you have so far ignored the question of mileage. No doubt those two trains are measured 4391 across the state; the mileage in which case is greater in each case than the mileage of the forty-eight local trains.

Q. No, some of the forty-eight local trains have the same mileage

as the eight through trains.

Mr. MOORE: Give me the number or the date of the time card

you referred to, please.

Judge Hill: I had a current one and it may not be accurate, as I have already said. But I do not suppose it is absolutely inaccurate. I wish to get a time card of the period under consideration. ever, I think this one is nearly accurate.

Q. Mr. Ward, of these through trains, six of them (including that mail train which carried very few passengers) ran the length of the state, 305 miles; two of them made 184 miles each; and of the local trains, two af them made only the length of the state, 305 miles; six of them made 202 miles

Mr. Moore: Is that mileage of the through trains in the state of Arkansas or the total mileage of the through trains?

Judge Hill: In the state, I would assume, from Mr. McPherson's

Mr. Moore: That is what I understand to be the case.

Judge Hill: I assume it would be true of the locals, just what is in the state.

Mr. Moore: Most all of the locals are within the limit of the state.

Judge HILL: I just called attention to the fact that two 4392 of the locals ran the entire length of the state, just like two of the through trains. And six of them ran 202 miles.

(Which I presume is the Memphis train.)

In view of these mileage facts, Mr. Ward, would you say there is any necessity of working up the cost between the local and through?

A. I do, if we are going to determine the cost of handling the

state versus the interstate passengers.

Q. Would not these figures show you very plainly that the bulk of all the passengers in the state, both state and interstate, are carried on these local trains?

A. I would not say. That could be ascertained by an examina-

tion of the records.

Q. That would be the natural inference to draw from the facts I

have just put before you, wouldn't it?

A. I do not think it would be safe to draw that conclusion, no, sir. Many of the local trains are very, very light and carry very few passengers. While most of the through trains are very heavy and carry a great many passengers.

Q. I will call your attention to the further fact that two of these

trains go to Memphis?

A. They simply cross the river to get out of the state. Q. That makes them interstate in this calculation? A. Those handled west of the river would be state. Q. The same thing would be true of the through trains?

A. Except that the through train does not do stopping

to drop off passengers that the local trains do. 4393

Q. Generally speaking, how often do the through trains stop?

A. Thirty to sixty miles, generally; and local trains stop at every station.

With regard to passenger business, I have watched with a great deal of interest the movement of passengers, in an endeavor to determine how our trains should be carded and the times and places where they should run.

My observation is that a very large percentage of all the passengers who travel, travel from their own town to the next station that

is bigger than the one they live in.

The probabilities are that in the case of the local trains the passengers travel from a short distance and go from their own town to the next market town or county seat. That is the way the passenger business of the country travels, as a rule. I have examined the records of hundreds of stations, to ascertain what the habits of the

people are in traveling.

Q. I believe from your testimony I would infer that you do not believe in the car mile as a basis to determine the cost of maintaining equipment, either freight or passenger?

A. Not for this purpose, no, sir.

Q. Why is not that a good factor to determine the relative cost?

A. Well, it bears upon the purpose of the inquiry.

Q. You understand the purpose of the inquiry here is to

4394 find out whether those rates are compensatory,

A. I understand that. But I mean if a railroad wants to know what it costs to maintain its cars, it is a proper thing to keep a record of the miles they make, and determine how much it costs per mile per annum; or per car per annum. But if we are undertaking to determine what it costs per mile to repair a car with reference to the business that is carried in that car, then I do not think the car mile is a fair basis.

As I stated, yesterday, the car mile in local business, which is the car mile used to a greater extent than any other in the handling of state business, is a much more costly car mile than is the car mile used in the through business. The car is handled, so much more, and under conditions which are much more destructive to the car.

Q. Using the car mile as a measure of maintenance of equipment

for the purposes of this suit, what do you say of it?

A. I think it is wrong. I think the state's accountants have recognized that by undertaking to add certain constructive miles to these miles in local service, in order to attempt to reach a theoretical car mile, because the actual car mile was not fair and reasonable.

Q. Suppose you want to use the car mile to get at the expense between states, with a view of seeing whether the rates are compensatory, and divide your business between states. What

then would you say as to its being a proper factor?

A. We would still be in the difficulty that the car handling the state business is a less efficient agent, that is, it moves less ton miles than does—

Q. I do not think I made my question clear, Mr. Ward.

Suppose cars are used in two or three states—and of course they would be used in both kinds of traffic in those several states?

A. As between state and interstate business?

Q. No, not as between state and interstate, but as between two states. Suppose you had a road that ran in two states and your cost of equipment was divided between those two states on the basis of the car mile, what would you say as to that—or say six or seven states. No matter how many states your system runs into. How many states does the Burlington System run into?

A. I think it is twelve.

Q. If you had a rate case in one of those twelve states would you divide your cost of equipment between that 12th state and the other eleven states on the basis of the car mile?

A. I don't think I would.

If I were undertaking to determine what it costs me to do busi-

ness in that state I would have to make a careful local examination of what the conditions were; and if they justified apportioning more than a pro rata proportion of the expense to that state, I would so apportion it.

4396 Q. That would be comparing the condition in that state

with the condition in the other eleven states?

A. Yes, sir.

Q. It might be that to one state that would be unfair, that is, too little, and very much too much for another state.

A. It might be.

Q. Owing to the conditions of the business?

A. Yes, sir.

Q. Your attention was called yesterday to a trans-state proposition on the station handling, and I believe I called your attention when you were on the stand heretofore to the fact that in Arkansas there is a great deal of the interstate traffic that has two or three handlings in the state, like cotton and grain and lumber, and various other large commodities, whose movement constitutes some of the largest percentages of these roads.

In view of that fact, it would not do to say that generally speaking the interstate business had one terminal and the state business had two terminals and the trans-state business no terminal in the

state, would it?

A. I think generally speaking, it would be safe. I think I called attention to the fact that when I was on the stand before, in that particular case, that all states probably have some special condition

attached to them: Minnesota has its iron ore and grain,
which is interstate business; and North Dakota has its wheat,
and Arkansas seems to have its cotton.

Q. And lumber?

A. 1es, lumber. I had those general conditions in mind and I tried to make allowance for the general conditions of that kind which must apply in all states. But that does not alter the substance of my view.

Q. Of course, the extent of this movement having three terminals in the state would be a matter that would modify the proposition as to how largely they would alter the general run of such things.

A. They ought to be taken into account.
 Q. I omitted to ask you about one matter.

You testified yesterday that you did not think the mail and express should bear any part of the traffic expense: I want to call your attention to the fact that that item was questioned as being a proper item against intrastate traffic at all, that no part of these outside agencies and industrial agencies, etc., should be charged to intrastate traffic.

Quite a number of witnesses (I cannot recall them all) have testified that it was proper on the theory that these agencies build up the country and induce the business in to the country, and that any agency which would tend to build up the country and build up the traffic on the road generally, would indirectly redound to the benefit of the intrastate traffic. I believe that is about the

theory upon which the state is charged with a proportion of that expense. If that theory is true should not the mail and express also be charged with a proportion of it on the same theory?

A. It seems to me the point is a very small one. I would not personally think very much of the expense should be charged to

the intrastate business.

Q. That is the position we took, but this gentleman converted us to the proposition of "laying up treasure in heaven"—or Arkansas—and we felt that on that theory they should be charged with their proper proportion.

A. That is true, in a general way; but I think it is a pretty fine

point.

Q. I think so. But if you are going to accept that fine point, you should apply it to mail and express as well as intrastate traffic, don't you think so?

A. Yes, sir, it seems to me so.

Q. You agree with me that it should be cut out entirely or should be spread over all the business?

A. Spread over the business in such proportions as are correct,

when ascertained.

Q. We may differ as to what would be the correct proportions, but get some factor that would properly spread it: is that the idea?

A. Yes, sir.

4399 Redirect examination.

By Col. Moore:

Q. To the extent that that class of expense should be charged to intrastate business, on account of building up the state and thereby increasing the general business of the Company, that view is based upon the proposition that in doing that you do build up and develop the business of the railroad; but as I understand it the mail and express business is worked up by other agencies and the railroad has nothing to do with it except to carry it for other people—the mails for the Government and the express for the express companies. In that view there would be a difference between the ordinary intrastate business and the mail and express in the application of the principle to which Judge Hill called your attention?

A. Yes, sir, there would be a slight difference.

Q. I want to call your attention to the service rendered to cars in through trains, in the handling they get at division terminals, while being transferred from one train or track to the other; and the service rendered to cars in local trains, such as their being switched to industries, etc.: Is there any comparison in the expense of industrial switching for local cars and the switching that is given to cars on through trains at division terminals, for the purpose of transferring them from one track to another?

A. There is a very great difference, of course, in the 4400 handling and in the destructive effect on the car; a car in through service simply being put from one train into an-

other, or having its engine and caboose changed, as comparatively

little is done to it and in many cases nothing whatever.

But a car switched in industrial switching has to be handled a number of times, depending upon the conditions. It has to be taken from one train and put on another track and sometimes there are a group of cars going into the same track or territory and, depending upon conditions, they are perhaps rehandled again, to be placed at the proper end of the switch tracks. These run in all directions, and the cars have to be dropped from the head of the train to the rear of it; and there are many movements which go to increase the risk of injury and the cost of maintaining those cars, which do not apply to the cars passing through terminals in through service.

Q. That would result in a very much heavier expense for maintenance growing out of switching to industries for local cars than it would to switching that applies to the through cars, in transferring them from one train to the other, would it not?

A. Yes, sir, and it was that difference I had in mind in making

my statement yesterday.

Q. Mr. Ward, your attention was called to Exhibit 46, filed in this case by Mr. McPherson, showing the through and local trains. A reference to that exhibit shows, for the purpose of illustrating

the point to which I call your attention, for instance, that through train number 3 runs 305 miles in Arkansas; in that

305 miles it makes ten stops; it carries 4 Pullmans. According to the assumption made by the State's accountants in their exhibits in this case, of the passengers on those cars seventy-five per cent are interstate passengers and twenty-five per cent are state passengers. That is the condition in regard to that train. The run of that train in addition to the 305 miles in Arkansas is 184 miles in Missouri, making the total run of that train about 500 miles.

Train number 24 is a local train; that also runs 305 miles; in running the 305 miles it makes sixty-eight stops. We will assume it carries one Pullman car (I don't know whether it does or not). The local or state passengers in that car do not sleep there but go in there to get a more comfortable seat, going from station to

station on the run of that car in the state:

I want to call your attention to these conditions and ask you to state, in view of those conditions what your opinion would be as to these matters to which Judge Hill has called your attention?

A. I think it simply calls attention to the necessity in such a matter as we are discussing of taking into account the difference between the local and the through train so as to accurately reach a conclusion as to the cost of state versus interstate business.

Q. That shows also, does it not, that it would indicate that the Pullman on the local train is used for short haul

business?

A. Yes, and such reference as I have heretofore made to Pullman cars has been with the idea of considering them not so much as "Pullmans"—as that is only a name—but as sleeping cars; not as

parlor cars, which may be also "Pullmans". I was thinking of

sleeping cars.

Q. One of the grounds upon which you predicate your objection to the division of expenses on a car-mile basis, within the state, between these different classes of cars, is the different conditions?

A. You are speaking of passenger service?
Q. Yes. The different conditions which exist in regard to the cars themselves and the difference in the expense of maintaining the different classes of cars.

A. Yes, sir. Q. In speaking of the division of cost of car equipment between the states, on a system which covers more than one state, you also stated that would not be a desirable way to divide it: but there is one thing to which I wish to call attention:

We will take the case in hand: the Iron Mountain operates in Arkansas, in Missouri and in Oklahoma; there are three states in which it operates; in each one of those states there are through

The probabilities are that the and there are local trains. general conditions which would vary as between the cars 4403 used in the state locally, would as between those three states

constituting a part of this system, be generally about the same. That is to say, they run local trains in Missouri, and they do in Arkansas, and they do in Oklahoma; and probably the same variations exist in each one of those states. I think that would naturally

be the case.

Isn't that difference of condition such as would preclude a division between the different kinds of cars within the state, isn't it decreased very largely when you come to divide the cost on a system running in different states, growing out of the fact that the general conditions, etc., would be about the same in the different states—you have my idea?

A. Yes, I think so. I think I agree with you fully on the proposi-

tion.

Judge HILL:

Q. What is the proposition you are agreeing to, Mr. Ward?

A. My understanding is, that on a system of railroad which operates in a number of states, in those states there are varying conditions, such as through trains and local trains; and different costs of handling business on those through and on those local trains; and that in those different states those conditions are relatively about the same. And for a system undertaking to determine the cost of maintaining its equipment (as between the states) it would be fair to make the assumption that as between one state and another the conditions would be about alike. the proposition?

4404 Col. Moore: That is the proposition I asked you about.

A. That is the way I understand it.

Judge HILL:

Q. Why would that justify it on a car mileage division between states any more than between through and local trains?

A. It would be simply a comparison of one state with another, for the purpose of maintaining the Company's own records. That is the general proposition.

Q. You mean for the purposes of comparison of operation in one state and operation in another state, as to the question of efficiency

in the management of the road: isn't that it?

A. Yes, sir, and a little more than that. For instance, on the Burlington road if we were going to undertake to determine whether it cost more to handle passengers in Iowa than in Nebraska, the conditions as to through trains and local trains, branch line trains and main line trains, would average up one state with the other pretty well; so it might be safe to say it costs no more and no less to handle passengers in Iowa than in Nebraska.

Q. That would depend upon whether the conditions in Iowa and in Nebraska were the same, would it not. Mr. Ward?

A. Yes, sir.

Q. So your whole proposition would resolve itself into the question of whether the conditions in one state fairly represent conditions in all of the states into which the system runs?

A. Yes, sir, and also upon the idea that as between states in the same general territory those conditions are approximately the same.

Q. Do you know in how many states the Missouri Pacific System runs?

A. I know about where the system runs. I know generally.

Q. It runs through ten, eleven or twelve states.

Isn't that right, Mr. Johnson?

Mr. Johnson: It runs in nine states.

Judge HILL:

Q. Wouldn't you say that the conditions in those nine states are similar, so you could use the car mile as a basis to find out the proper expense in any one of those given states?

A. No, sir, not in all. There is a good deal of difference.

Col. Moore (resuming):

Q. Any division as between states would be diminished when you come to divide between states, on account of that greater similarity in conditions, that you spoke of?

A. Yes, sir, there would be a closer similarity between state and state, probably, than between local and through business in the

limits of one state.

4406 Carl R. Gray, sworn and examined on the part of the complainant, testified as follows:

Direct examination.

By Colonel Moore:

Q. State your full name, please? A. Carl R. Gray.

100 010

120 - 813

Q. State your place of residence?

A. St. Louis, Missouri.

Q. What is your occupation?

A. Senior Vice-President of the St. Louis & San Francisco Railroad Company.

Q. What are your duties in connection with that?

general manager I mean of the Company?

A. I have exclusive jurisdiction over the operations of the railroad and in the absence of the President jurisdiction over 4407 all of the departments.

Q. Will you state when you began railroading and what

your experience in that line of work has been?

A. I began railroad service in January, 1883, as telegraph operator and I served in telegraph and station agent's work until March. 1886.

Then I went into the traffic department and was successively clerk and chief clerk in the office of the general western freight agent at Wichita; then I succeeded him in April of 1887, as commercial agent.

Then I was in succession District Freight Agent and Division Freight Agent until October, 1897, when I became Division Super-

intendent.

I was promoted to superintendent of transportation in October, 1900, General Manager in April, 1904, second Vice-President and General Manager in November, 1904, and second Vice-President from August, 1906; and Senior Vice-President since November. 1909.

All of my service has been with the one railroad company.

Q. What company is that?

A. St. Louis and San Francisco Railroad Company. Q. Where did you begin your service, Mr. Gray?

A. At Rogers, Arkansas. Q. During all your service you have been connected with oper-

ation in the State of Arkansas, hav ou not?

A. I have been, either directly or indirectly connected with service in the State of Arkansas. Part of my time though, I have had jurisdiction which did not include the State of 4408 Arkansas.

Q. But what I mean is, that your jurisdiction, among others, has

included the State of Arkansas?

A. No, sir. For some years I have had no jurisdiction over the State of Arkansas. But I have had jurisdiction over it for ten

vears.

Q. Mr. Gray, without asking a long question, in the way of explanation I will simply ask you whether you have examined the state's method of dividing the expense of conducting state and interstate traffic or transportation, by ascertaining the tonnage of the local and through trains and then dividing the cost of operation between those two classes of trains, and the method of dividing that between the tons of each class on the ton mile basis?

A. Yes, sir, I have examined these exhibits that have been introduced.

Q. Going back to the beginning of the method adopted which was the relative tonnage of the local and through trains, I will call your attention to the manner in which the tonnage of each class of train has been ascertained by the state's accountants:

They took the month of October, 1907 and by examining the wheel reports and waybills, so far as they could obtain them ascertained the actual movement of freight on local trains in the State

of Arkansas during that month.

Now, to ascertain the freight that was handled on through trains they subtracted the tonnage obtained in the manner I have mentioned, on the local trains from the total amount of freight, both state and interstate and of all classes, in the State of Arkansas, as shown by the Auditor's revenue accounts. That ascertainment is shown I believe, on Exhibit "I", if I am not mistaken.

I would like you to state your views as to the correctness of a division of freight hauled, as between local and through trains, as-

certained in that manner?

A. I would like to ask if the practice on the Iron Mountain was for the Auditor to take into his accounts his local billing and his interline?

Q. I will state what that was. I intended to state that.

His accounts are made up in this way: System business is taken into account on what is known as "a forwarded basis"; the interline business is divided into three classes, interline forwarded, interline received and interline through or overhead.

A. You have not stated how the interline billing was taken into

account.

Q. I will give you then a statement which was furnished to the state's accountants.

A. (After examining exhibit:) I gather from this statement or exhibit, that the local business and interline forwarded is taken into account as of the forwarded date.

That the interline received and the interline through, or where the Iron Mountain is the intermediate carrier, is taken into account as of the date actually reported or finally reported by the receiving

agent or carrier.

Predicated upon that I would say that to subtract an absolutely determined amount from one which was not arrived at in any wise by the same manner, is entirely misleading, for the reason that the gross which is represented in the Auditor's net ton miles, includes business that may have been billed for some months before; certainly a very considerable portion of it is billed the month before; and excludes a great deal of business that was actually handled in this month.

That is such a variable quantity, varying as the proportion of the last two may bear to the first two, that in my opinion it is unreliable.

liable.

Q. Would the incorrectness that would be developed in the way

you speak of be cured by any equality in the lapovers from month to month, and make it representative in that way?

A. It would not, as applied to any reasonably short period. It might, if applied to a five or ten year period.

Q. I mean for one month, say the month of October?

A. One month as applied to what?

Q. To six months.
A. No, sir.

4411 Q. Have you had any experience on your line of railroad that furnishes you with any information in that respect?

A. At one time in endeavoring to provide statistics of value in determining the relative performance, on the several divisions of the road, we took the ton miles from the Auditor's reports. We found them to be unsatisfactory, for the reasons I have stated; and for the additional reason that the Auditor assumes, naturally, that freight travels through a certain prescribed route.

The operating department may not handle it via that route, for reasons that are good, and sufficient to them; such as interruption of the line or a more economical routing to a certain class of busi-

ness, or a handling that would conserve time.

Therefore, we were compelled, in order to have reliable statistics, to adopt the method by which we arrive at the net ton miles handled on any division of the road, from the conductor's wheel reports, which represent actual conditions. And we have been satisfied with that.

Q. The tonnage handled on local trains on the Iron Mountain road during the month of October, 1907, in question here, appears

to be only 11% of the total tonnage.

In that view about 89% of the tonnage was ascertained in the manner I have indicated from the Auditor's revenue accounts:

What effect would that small proportion of located tonnage, so to speak, have? As between the two classes of trains it would leave a very large margin for inaccuracy and incorrectness as to the other part of it, would it not?

A. It would add to the possibility and probability of that, in the greater proportion it bears to the amount accurately determined.

Q. What effect would a congestion in the business in the month that is adopted for this division, it being one of a number of months of congestion beginning some time previous, and extending later, with the particular month of October, 1907, in view, as the one in which the congestion reached its highest point and began to recede soon after the end of that month, but was greater during that month than it was during the previous time or later. Perhaps it began receding in the first part of November:

What effect would that have upon the correctness or incorrectness of such a method of dividing the ton miles carried on those two

classes of trains?

A. It would have this effect: it would distort those conditions

which prevailed under a more normal situation.

To make myself clear, in order to satisfactorily handle local business, the local freight transpurpment upon something like an estab-

lished daylight sheedule, should handle the preponderance of that business.

In time of congestion or stress, that is of necessity lost sight of and under those conditions there can be no doubt that a greater proporton than normal of through business would find its place in the

local trains.

4413 Q. Why is that, Mr. Grav?

A. Well, you have a certain given amount of power, and it is human nature, if not good practice, under those circumstances to make it count just so far as you can; and in that case they would load down the local freight trains to the full efficiency of the engine, even in some cases knowing it would be very seriously delayed and the service materially hampered, in an effort to get out from

Q. Mr. Grav, you have a copy of Exhibit K there before you: will you take that exhibit and take up the various items in which an effort has been made to segregate costs of operation of local and through trains and state your views as to the feasibility and correctness of the method adopted?

A. Do you want me to take Exhibit K as it comes and criticise

each of the propositions contained therein?

State your views with regard to each.

A. Exhibit K seems to me in general a proposition to largely use physical conditions in arriving at this final separation, by first dividing between local and through and then dividing between intrastate and interstate finally.

In the maintenance of way and structures, which is the first subdivision, the engine miles in through and local freight have been determined and 50% has been added to the local engine mileage,

for station switching:

I am not satisfied with the 50%, because in my opinion it is not enough to compensate for the extra maintenance which is occasioned by switching.

Q. Is there any way by which anyone can tell what would be

the proper amount?

A. I have not any method of arriving at that. I simply say that in my judgment it is not enough.

Q. From all your experience as an operating man you would not be able to state what would be proper?

A. No, sir, I have never felt I could do that.

This assumes further to convert engine miles into car miles, by an arbitrary allowance of 21/2 times a car mile as an offset for an engine mile.

Then they have taken all of the freight car and caboose miles, plus 21/2 times the engine miles, to arrive at the total of each, local

and through.

Then a percentage of each has been taken to divide the maintenance of way expenses as between local and through trains. I believe there is in railroad practice only one more unreliable factor than a car mile, and that is a train mile.







The car mile is so variable a quantity as to be of no service in any

comparisons or divisions which I have ever made.

It takes into account no distinction between classes of lading; between weights of lading; between a car where the tare is a large proportion of the load on the rail, and where it is a light proportion. It

assumes that the cost is equally proportioned for a car handled five miles as it is for a car handled 300 or 500 miles.

The further inclusion of caboose mileage only accentuates

this difference.

Above all that, however, is the fact that 2½ times a car mile is not sufficient for a locomotive mile, as it affects maintenance of way

expense.

A locomotive, with its shorter wheel base, with its greater axle load, with its connected drivers, with its constantly present problem of counterbalancing, with its constantly changing load on the tank, due to the taking on and using up of coal and water, the known tendency of the engine tank to de-rail, out of proportion to all other carriages, the damage that a locomotive frequently does to the track itself, while on the track and the greater proportion of damage it does if derailed, none of these facts are taken into consideration.

I believe, however, that the greatest difference in the problem here is the fact that so large a proportion of the total maintenance of way expense is not appreciably affected by the volume of business and is

a condition by itself.

At least 75 or 80 per cent of the expense of maintenance would be present were the business light or dense; were the preponderance of local and through to reverse themselves.

Q. What do you think of that method of dividing that class of

expense?

4416 A. I do not think it is a good method, for the reasons I

have stated.

Q. Mr. Gray, I want in that connection to have you state your views as to whether October, or any one month out of six months, say of the last half of 1907— is that month of October in your judgment to be used arbitrarily as representative of the 6 months,

with reference to that class of expense?

A. From my knowledge of the conditions on all southwestern railroads in October, 1907, I would say that in my opinion for a comparison of this kind it would have been difficult to have selected a month in which the results would have been more misleading as applied to a longer period, for the reason that the congestion reached its flood during that month, and the conditions which were distorted by reason of the efforts of the operating department to move this unprecedented tonnage would reflect themselves through all of the remaining months, and the proportion of tonnage included which really did not move in that month, and the precortion of tonnage excluded which did move in that month, due to the Auditor's method of keeping his ton miles, would equally distort, and perhaps distort more greatly, all of the other months.

Q. Is there anything further you wish to say now in connection

with that branch of the subject? If not, take up the next, Maintenance of Equipment, which follows after that.

A. In the Maintenance of Equipment, division 2, sub-division A

of Exhibit K provides for locomotive repairs.

4417 These are first divided between yard and local and through road locomotives on the basis of locomotive mileage of each class during the month of October, 1907; 50% has been added to yard locomotives to provide for possible extra maintenance due to yard service. 50% to local road locomotives to provide for extra switching service; to which has been added an additional 50% to this 50%, to provide for the possible extra maintenance due to switching service. There is nothing in my experience which justifies either of those assumptions. It is entirely arbitrary. It may be fair, and it may be not enough, and it may be too much.

One of the objections to it, is the fact that the word "mileage" to begin with is an assumption; and 50% added to an assumption does

not strengthen it any.

It assumes further to divide the expense of yard locomotives between local and through on the basis of the number of cars of each

It is to be assumed that customary practices were followed in arriving at the cars handled at terminals, that is a car in and out counts twice.

Q. That has been adopted; that is the testimony in the case.

A. Yes, sir. The assumption then, that a car in local service requires no more switching than a car in through service, is not sound. It is a very frequent thing in practice for the through train to require one switch. That is, the caboose is taken off and a caboose put

on the train. One cut is made to reduce, or one switch is made to add tonnage, where a reduction or increase in the train load is caused by physical conditions; while, on the 4418 contrary, a local train is the one which requires the most switching,

and particularly in proportion to the haul.

The local train will in ordinary practice be composed of cars that have been picked up at the local stations, which when it reaches a terminal will go in all the different directions; or at that point are

switched together for the through trains.

Another factor which this does not take into account is the fact that the car which passes through that yard, and is never touched individually by an engine, counts just the same in expense as a car which is switched to an industry, where it occasions a switch in some instances even of several miles; it may be handled by itself or handled in conjunction with several others, but it carries in proportion a great many times the expense of a car that would pass through that terminal in a through train.

The difficulty about it also is that it assumes that the cost of switching one car is the same as switching another car. It may be a good theory but my experience does not justify me in the con-

clusion that it is.

In the case of sub-division "B" "Repairs of freight cars":

This has been primarily apportioned on a car mileage basis

and evidently for the conceded element of additional repairs due to stopping and starting, an arbitrary allowance has 4419 been added.

Q. Pardon me a moment, Mr. Gray, but if you will read the latter part of that paragraph you will find that has been provided for on a basis advanced by Mr. Wellington.

A. I was going to comment on that.

Q. I do not think there has been any arbitrary added on that account: the arbitraries are allowed after that division: I wish

to call your attention to that.

A. There is an assumption here of additional cost which is predicated upon Mr. Wellington's book as authority. I do not remember just when Mr. Wellington's book was published: is that in evidence?

Q. The evidence in this case shows it was published in 1877 and then the second edition in 1887. But I suppose it is not very material which year you assume. I think this proposition was

contained in his first edition.

A. Whether it was contained in the first or second edition, 1887, precedes by eleven or twelve years, the universal adoption of the automatic couplers; and the adoption of the air-brake.

It precedes by even a longer period than that the introduction

of the heavier carriage and heavier engine.

I have never been able to satisfy myself as to the percentage of damage that is done to cars by stopping and starting at stations and in terminals. I am constrained to believe that these figures given

by Mr. Wellington are nothing more than a guess, an ex-

4420 pression of his judgment.

If they were predicated upon any test which could have been made prior to 1887, it would be valueless as applied to con-

ditions today.

My own judgment is, that his proportions are reversed. He provides for 35% of the repairs, being due to stopping and starting at stations and handling at terminals. Of that he gives about 3/5 to starting and stopping at way stations and about 2/5 to terminal handling.

In my judgment he has very largely understated the gross percentage due to these two causes, and I think he has reversed the

relations.

Q. In other words, you think it would be nearer 70 than 35 per cent?

A. It would be nearer 60 in my judgment than 35, and while I have nothing to substantiate this except observation and judgment and experience, I would say it is nearer 60; and I would place the proportion of damages done in yards and terminals at \(^3_3\) of that and to stopping and starting at way stations \(^3_4\).

Q. What is the next sub-division?

A. An assumption has been made here that local trains stop each five miles and through trains each 20 miles.

Q. That is based on the evidence in the case and we accept that so far as that part is concerned. A. The assumption further is made that each car in local service receives two terminal handlings and that each car in through 4421 service has one handling.

The further objection to this is, that it does not take into consideration the trans-state car which has no terminal handling,

distinctly as such.

After first having made an arbitrary deduction of the amounts which have been allowed in this assumption of the expense for starting and stopping and other terminal handling, the balance of this freight car maintenance is divided upon a car mileage basis as

between local and through trains:

My criticism of that is, that it has not provided for the additional costs; that the allowances given are misleading and improper as applied to present day practices; and, further, that the assumption that freight car maintenance can be fairly divided into freight car mileage, is not sound, on account of the varying costs, varying sizes and capacities of the different cars; and the further fact that it puts the caboose mile as against the 50 ton car mile; that it puts a refrigerator car against a flat car; and all serving in my opinion to make an uncertain basis of division.

Q. Mr. Gray, that is for the purpose of dividing the expense between the local and the through trains: in that connection, there are certain of these divided between states on a car mile basis.

I want to call your attention to that and ask you if the conditions in different states in which a system is operating would or would not be similar as between one state and another, and if there would be greater similarity of condition and a better

reason for dividing the expenses between states on a car mile basis than there would be as between local and through trains.

I simply mention it to call your attention to it. You see what I want to get your view upon?

A. I do not believe I understand that question.

Q. I understood you to say you did not think, in your judgment, the car mile was a proper basis to divide expenses of through and local trains?

A. To divide the expense of repairs as between local and through trains.

Q. What would you say as to that as the proper method of dividing these expenses of repairs as between two states in which a system is operating—say Arkansas and Missouri; I speak of that because both those railroads operate in both those states.

Is there a similarity in conditions in those two states which would more nearly justify that basis of division than as between local and

through trains?

A. I would say there was.

Q. That is what I want to call your attention to, because it will be drawn out and while I do not know your views about that I want you now to express your view as to the merits of that kind of a division between states, as compared with a division between local and through trains: that is the method which has been adopted in this case for dividing between states.

4223 The state's accountant has made an assumption that each local train makes a stop each five miles and each through train makes a stop for each 20 miles: That assumption is based upon the evidence of operating men of the Iron Mountain Railway and

we have no complaint to make of it.

Now, for the purpose of ascertaining the relative expense, the accountants have in determining the starting and stopping expenses, multiplied the local car miles by four, in order to account for the more frequent stops of the local train. Then they have in addition to that assumed that each car in local service requires two terminal handlings, to each terminal handling of a car in through service.

Now, I wish you would look at that and state if you think a sufficient allowance has been made there for stopping and starting

of cars in local service?

A. There is as wide a variance as it is possible to conceive between two similar things, between a stop of a local train and a stop

of a through train; in every day practice.

The stop of a through train is most frequently for transportation or operating reasons; that is, it is a stop to take a siding for or to meet and holding the main line for the opposing train. It is usually unaccompanied by any more work than the taking of

4424 the side track or holding the main line while the other train

takes the side track.

The local freight trains perform the greatest amount of *its* functions in connection with a stop of that kind. It may be hours' duration, or it may be short. It is all dependent upon the work required at that local station, as differentiated from the through train which has no work whatever to do.

I would say that an allowance of four times, which is predicated solely upon the fact that the stops are four times as frequent, is wholly unfair. I am not prepared to say what it should be, but it

should be several times that.

Q. Several times that?

A. Yes, sir.

Sub-division "C" provides for the division of supervision and general expenses in maintenance of equipment department on the basis of the direct charges which have been previously determined by the methods which have already been criticized.

In division three it is sought to divide traffic expense on a basis

of straight revenue.

My criticism of this is that it has abandoned one theory and adopted another.

I do not see how it is possible to start out on an assumption following physical conditions and to swap to that of income.

I do not criticize the method, which is perhaps a fair one and, everything else aside, would not cut a great figure one way 4425 or the other; but I do feel it is not consistent to use one method upon a part of the expenses and another method upon another part of the expenses.

Q. In other words, you think there is no more reason for apply-

ing the car mileage basis to maintenance of way than there would be to traffic?

A. That is my theory.

Q. And, as I understand you, you do not think that is a proper method of dividing either one-that is, the car mile basis?

A. No, sir, for the reasons I have stated.

Q. The next sub-division is "Transportation expenses" and the first item is "Station expenses."

A. Sub-division "A" is "Station Expenses."

We have now still another method of dividing. This is stated not to be a train expense, therefore, a straight division of this expense between intrastate and interstate on the basis of tons of each class of traffic, doubling the intrastate tons as an allowance for two terminals, has been adopted.

Q. In that connection, before you proceed, perhaps it is as well I should call your attention to the fact that in a later exhibit filed by the state, after this one, they have excluded trans-state tons from this division; and the division now rests upon intrastate and inter-

state, excluding trans-state tons.

A. That again is rather decidedly admitting the weakness of the matter, in that they have eliminated only the weakest feature.

4426 But their action still further accentuates the fallacy of this position (indicating Exhibit) because it assumes there is no

station expense in handling the trans-state tons.

The whole difficulty of this theory (indicating exhibit) is its assumption, first, that it does not cost anything in station expenses to

handle an overhead or trans-state ton:

Second, that it costs in station expense as much for moving a ton mile as it does for moving 50 ton miles, in proportion or perhaps I had better state that instead of ton miles, a ton one mile as contrasted with one ton 50 miles.

That the cost of handling forwarded business per ton is the same as the cost of handling received business per ton. While prac-

tically there is a great difference and distinction.

A forwarded ton is billed by the agent; he is not even responsible

for the correctness of that bill or the rate used.

He is also responsible for the correct accounting and the applica-

tion of the correct rate, upon all business received.

It assumes there is no difference in the station expense of handling a ton of brick or coal, carloads, as contrasted with a ton of classified merchandise, the one involving a very minor amount of work, the other involving an intricate knowledge of rates, of accounting, and handling. It is further subject to criticism in my opinion, in that it assumes that it costs only twice as much to handle a ton which has two terminals as contrasted with the ton which has only one terminal.

Q. That being divided on the basis of tons handled at stations,

and not ton miles?

A. Yes, sir.
Q. Is there anything further you wish to add to that? If not, I call your attention next to sub-division "B," Yard and Terminal Expenses.

A. These expenses are predicated upon the cars handled, and are subject to the same criticism exactly, on account of the great distinction between the work involved in handling different cars, that I have made in the matter of sub-dividing maintenance of locomotives.

Q. By a later exhibit filed by the state in this case, they have made some change by eliminating in the account 25% of the cars in the through trains: would that in your judgment cure the de-

fect?

A. That is an arbitrary deduction, not based upon anything in

my experience.

Q. Look at sub-division "C." fuel and locomotive expenses: and state what you think about the assumptions upon which that is apportioned between local and through trains, on this exhibit of the St. Louis Iron Mountain & Southern Railway Company?

A. It is the application of six months' operation on the Iron Mountain with its varying conditions—branches and main lines with a test made upon another railroad, without any comparison being given for the benefit of the witness, as to the engines used on the Cotton Belt as distinguished from the engines used in the several classes of services on the Iron Mountain; and no informa-

tion as to the relative number of cars handled on the two railroads, the length of the local such as the amount of work done by the two; and my conclusion is that it is

not a fair basis upon which to divide the expenses of the Iron Moun-

Q. You have observed that the test on the Cotton Belt was made in another year; that is, October, 1908, for the purpose of applying it to the month of October, 1907, on another road: do you think

that would be a fair method of testing?

A. No. sir. It only further accentuates the fact that it was made at a time of normal conditions, when local freight was performing such functions as it ought to in ordinary practice, handling a much less proportion of tonnage than it would if handled during a period of congestion; and not improbably a different type of engine was used.

Q. It would be objectionable, even on the same line of road, would it not, to measure a period of one year by a period in another one

year?

A. It would be, especially two periods of such varying conditions

as October, 1907, and October, 1908.

Q. The next subject is Engine House Expenses.

A. That is divided upon an approximation of the control of the c That is divided upon an engine mile basis and in addition 12% has been given to the local engine miles, on account of the fact that the local engines have a shorter average run, which I presume from these figures here is 12%: is that correct?

Q. Yes.

4429 A. This is misleading, but I must admit I do not know to what extent.

It is not a fair assumption, in my experience, to say that a local engine needs no more attention per mile than a through engine.

My observation would be that it needs a greater amount. Its firebox ordinarily is in worse condition. The engine has been subjected to harder usage; it has been longer per mile on the road and therefore, dirtier per mile.

I would say there is a considerable excess cost here, but just what I do not know. I believe, however, it is more than has been allowed.

Q. The next branch is "Road Enginemen and Trainmen."
A. Road enginemen and trainmen, it has been stated, have been accurately apportioned for the month of October, 1907. And this apportionment as applied to this abnormal month has been applied throughout a six months' period.

That is subject to the same criticism I have given to all con-

clusions which use this month as a basis for a six months' period.
Q. I want to call your attention (probably you know it but I have the statistics before me) to some of the matters included in there as follows: wrecks, stock killed, damages to persons and property; flood damages; road signal men, crossing watchmen. freight car lubrication and other train supplies:

You might take this paper which shows the railroad sta-

4430 tistics.

A. (After examining paper.) This is another account which uses the month of October, 1907, as a basis for a division for a six months' period, between local and through, applying the train miles as the factor.

It seeks to divide, for instance, freight car lubrication on a train mile basis. It assumes that the lubrication on a ten car train is the same as lubrication on a 40 car train, per train mile.

That the train supplies are the same for one class of trains as for

another.

It divides the injuries to persons upon a train mile basis, while the experience which I have had would make the proportion of injury on a local train mile very much in excess of a through train mile, due to the greater hazard attendant upon switching, attendant upon coupling and uncoupling, climbing on to cars, handling brakes, handling of packages of freight, loading or unloading.

It is not a fair criterion to divide the stock killed and damage

to property. Certainly not as affecting flood damage.

It is subject throughout to the criticism that it seeks to apply to a six months' period a separation of train miles applying to a month of exceedingly heavy business.

Q. What is the next sub-division?

A. Sub-division "G" "Loss and damaged freight" is stated to be divided on a basis of the actual claims; and is the least objectionable feature except that it uses still another basis 4431 for their theory; it presents objection to me only for that

reason.

Q. The month of October, I imagine, or any other month, would represent in the account of the company, only payment made on account of damages that had previously occurred, and the claims for which had been adjusted and made ready for payment?

A. If you will pardon me, Judge, my answer was not responsive.

I should have said that the theory which provides for the actual claims paid being assigned to the intrastate and interstate, in itself does not present objections; but in this case I notice now what I had overlooked for a moment, that the month of October, 1907, has been again used as a basis for a six months' period.

We know in practice that claims paid and taken into account in one month rarely, if ever, reflect the results of that month's opera-

tions.

In other words, the claims paid for loss and damage represent previous months and the claims paid in this month would come into future months.

We might have taken here any one month-

Q. You do not mean claims paid; you mean damages accrued? A. Yes, sir, I mean damages accruing in previous months, sometimes extending into years. The larger the amount paid, the longer the probability of duration of time.

4432 Q. Is there any uniformity in the length of time between the occurrence of the damage and the time of payment of

claim?

A. There is no uniformity. Some of the roads—I do not know whether it is true here, but perhaps evidence has brought that outsome railroads recognize that by charging out an arbitrary amount per month, carrying the entire matter in suspense through the entire fiscal year.

Q. That is not done in this case?
A. Then it would be less reprehensible.

That method seeks to make a month representative of a year. That method would be less reprehensible, because if settlements were light or heavy in this particular month it would distort the whole priod.

Q. In order to apply a system of averages, you would have to establish first uniformity in the period intervening between the time

the damages occurred, and the time the claim was paid?

A. We sometimes do that and are sometimes fooled and have to take in an excessive amount in the last month.

Q. Proceed with your statement, Mr. Gray?

A. Sub-division "H" is "Supervision and General":

This is a case where they have taken sub-divisions which have been arrived at through the different methods which have been criticised. and have used them to arrive at percentages to represent direct charges.

They still hold to the train cost and car cost sub-divided between local and through, and have now the interstate and 4433 intrastate partially sub-divided.

I am unable to harmonize this feature.

In supervision, and general, under conducting transportation expenses, the supervision includes the superintendent and his office, the superintendent of car service or transportation and his office.

I think it is subject to all of the criticisms I have made to the

other sub-divisions, upon which it is predicated.

In division 5 is provided for general expenses. And they have

applied the train cost and such locatable intrastate and interstate costs as they have determined up to this time, to a further sub-division of general expenses.

These general expenses are, executive, legal, accounting and au-

diting.

Certainly the function of the accountant is very greatly affected by revenue. I do not see that it has any relation to trains or train mileage.

I cannot see that the law expenses are in any wise affected by it. Most of their work is in the direction of conservation of the revenue.

I think this is subject to all of the criticisms I have directed to-

ward the sub-division upon which this is finally based.

In sub-division 6 we have arrived at the total operating expense which has been brought down so as to represent four grand sub-divisions, namely, train costs, local and through; and other costs, intrastate and interstate, the last two being considered locatable.

Now, it is sought to divide these train costs, arrived at by these various methods, upon a ton mile basis, as between local and through.

Q. In sub-division 7 of this exhibit, for the purpose of dividing the expenses between these two classes of trains, they have adopted for local trains 26% and through trains 4.96%:

I wish to call your attention to that deviation from the application

of their October percentages?

A. I think this is the most graphic illustration of the incongruities that come up through the application of a six month's ton mile result with the results of the month of October, because we have now dropped down by applying those results, from the 28.51% which you mention to the 26% which is here shown, as applicable to the intrastate business on local trains; and from 5.59% of intrastate business on through trains to 4.96%. Thus indicating that in some of the months throughout the six months' period there was even a very much greater difference than this average would indicate.

The great objection, however, to this method, is the fact that they have used car miles, engine miles, tons, and in practically all instances have applied the October, 1907, results to the six months'

period.

And now, to this composite result they seek to apply a further percentage which is predicated upon the ton miles of a 4435 longer period.

The ton miles is the result of computations by the Auditor, and is as unreliable as a divisor for the reasons I have stated.

It is further unsatisfactory because it does not satisfactorily take into account the increased elements of cost as between the handling of intrastate on one hand and interstate and transstate freight on the other hand. One of which and a very potent one, is on account of

the difference in haul and the difference in the expense of handling.

Q. What, in your judgment, is the difference in cost of handling

intrastate business over interstate business?

Objected to by counsel for defendant as not proper on rebuttal,

Col. Moore: I am asking that question as a foundation for another one I wish to ask: I can put it in a different way, if you want it.

Q. Mr. Ludlam, one of the state's accountants has testified that under the method adopted by the state in this case, the increased expense of handling intrastate business over interstate business is 87%:

State, if in your judgment that is a proper allowance and if it is not state in what respect it is not and why you think it is an im-

proper allowance?

Judge Hill: Let me call attention to this: Mr. Ludlam gave that, or I believe it was Mr. Wharton—as the figures of the cost 4436 as worked out by this exhibit. He was not basing an independent judgment upon that, but gave that as 87% based on this exhibit. It was not opinion evidence but simply mathemat-

ical evidence based upon this exhibit.

Col. Moore: In order to meet the suggestion made by counsel I will state that Mr. Ludlam stated that the result of the figures obtained in the method adopted by the state was to apply 87% increased cost of intrastate above interstate freight, and Mr. Nay figured it out and puts it at 86%.

Now, I will ask you to state whether in your judgment that is a proper allowance of difference; and if it is not, state why and state

in what way it fails to make a proper allowance.

Judge Hill: I submit if this were direct testimony it would be perfectly proper if Mr. Gray would go through this exhibit and give his views in regard to it, but this is getting into the direct case on rebuttal, which is not proper.

Col. Moore: I think there is no impropriety in that.

Judge Hill: I do not think it is a question of impropriety, but a question of legality.

Col. Moore: That is the only sense in which I considered it, from the standpoint of legality.

A. I do not consider that is a correct allowance. I do not consider it is enough.

Col. MOORE:

Q. Subject to counsel's objection, to be determined by the Court, I will ask you to state what your views are as to the amount of the difference and then state why you think that difference exists 4437 in reference to the figures submitted by the State in those

exhibits, and your view as to what the difference is.

A. My judgment for a long time, as the result of giving such study to this mooted question as I could, such intelligent study as I was capable of, has been that the cost of handling intrastate freight business as against the cost of handling interstate and trans-state freight business, under the conditions which prevail in the Southwest, in practically any of the States in the Southwest with which I am familiar, will run from three to five times as much. In the subsequent study I have given the matter I would be inclined, if I changed at all, to raise the range of that cost.

Q. I understand you to mean if you were to deviate from your estimate of three to five you would be inclined to raise?

A. Yes, sir, to raise the five somewhat.

It is such a difficult thing to reach and determine that one has to make as wide a range as possible. It comes about through such a

variety of causes and conditions.

Q. It is in evidence in this case in a large amount of testimony introduced by the complainants, that the revenue theory is then proper method of dividing the cost of operation between state and interstate business. You have seen and just gone over the methods adopted by the accountants for the state:

4438 I wish you would state what your views are as to the relative

merits of the two methods of division.

Counsel for defendants object to the introduction of testimony from this witness, in rebuttal, as to the revenue theory. (Here follows colloquy.)

Col. Moore: I will change my question.

Q. What do you think of the merits of the plan adopted by the State's accountants for ascertaining and dividing the relative cost of

handling interstate and intrastate business?

A. I feel it is an unsatisfactory basis for the reason that it is not a consistent theory. That is, not consistent to itself; in that it has used a number of varying methods. Those methods being the car mile, ton mile, arbitrary assumptions as to the relation between the locomotive mile and the car mile; and that it has applied over a six months' period a result determined upon in one month; and that result in itself and in the nature of things is an unsatisfactory one and an indefinite one.

That at any point throughout its deductions an error or a switch of the business in the other months would very materially affect the

final result.

That it is objectionable because it is difficult of understanding. It assumes conditions which in practice we are not able to verify.

4439 But, above all, remains the fact that there is not a proper allowance that has been made for the relative cost of the two

classes of business.

Q. Mr. Gray, speaking of this plan of separation from the standpoint of the State, as to the arbitrary that has been allowed in these various sub-divisions, for instance, maintenance of way, they have made an allowance of fifty per cent to local trains on account of station switching; and in maintenance of equipment they have added fifty per cent to the mileage made by the yard locomotives for possible maintenance due to yard switching, to which has been added an additional fifty per cent for possible extra maintenance due to switching service.

And in maintenance of freight cars there is an allowance of four to one in favor of local trains on account of more frequent stops

made by the local than the through trains.

That enumeration will illustrate what I mean by the arbitrary as-

sumptions.

If those arbitraries were correct and there was any way to arrive at what division would be proper and you could say these allowances would be proper in favor of the local trains, would that account for the excess cost of handling intrastate over interstate freight?

A. No, sir.

4440 Q. Mr. Gray I will now call your attention to Exhibit M in this case, in which an attempt has been made to divide

the expense of passenger traffic:

The State has in that exhibit departed from the method adopted in regard to freight and has not sought to segregate that class of expense as between local and through trains, but has used the car miles of the trains:

You have been over and examined that exhibit, have you not, Mr. Gray?

A. Yes, sir.

Q. Will you take up that exhibit before you and begin with the beginning of it and call attention to such parts of it as you desire and state your views about them.

A. In the deductions throughout this theory, starting in with maintenance of way and structures, the car mile basis has been

adopted entirely.

Why the locomotive mileage has been dropped, although used in freight statistics, it is hard to understand; especially as the proportion of locomotives to cars is very much greater in passenger than it is in freight.

The coach, Pullman, mail and express car mileage has been set up and from those the percentages have been reached and the expense of maintenance of way and structures for six months divided upon percentages found to have been applicable in October, 1907.

This is objected to because no consideration has been given the locomotive, because it assumes that the expense of maintenance occasioned by the passage over the rails of a coach is

the same as that of a Pullman, or a mail car, or of an express car.

All of the Pullman cars, a very considerable and increasing proportion of the coaches, have six wheels per truck; most of the mail cars and by far the greater proportion of express cars, have four wheels to the truck?

The theory is objectionable because it applies to the longer period

of six months the car mileage of October, 1907.

But it is objectionable principally because it seeks to apply percentages to an expense, the greater proportion of which is fixed, and not affected by the flow of traffic.

Q. What is the next division?

A. In division No. 2 "Maintenance of Equipment" it is sought in sub-division "A" to divide the expense of repairs to locomotives on the car mile basis:

It is impossible for me to conceive any relation between these two and I have never known of its being used. It must assume, to justify itself, that the repairs to a locomotive hauling a three car

train, are one-third of the repairs to a locomotive hauling a nine

ear train-which is wholly incorrect.

It eliminates the question of the relative damage occasioned by the different classes of service, local and through, which heretofore has been considered.

Sub-division "B" covers repairs to passenger train cars:

These repairs have been apportioned to coach, mail car, express cars, on a car mileage basis.

May I ask if that is actual mileage for the period or is this the

month of October, 1907?

Q. This is the month of October, 1907, as I understand it.

A. This is not dependable for the reason that it assumes the repairs to a coach are the same as those to a mail or express car-which is not correct.

It is further objectionable because it has assumed a proportion of express car mileage to the total in the month of October, which is improbable as applied to other months of that period, when fruit and perishable stuffs are moving, and there must be further an arbitrary deduction because there are other classes of cars which are not included; for instance, combination cars, which must have been arbitrarily thrown into one or the other of these mileage figures. Such assumptions are necessarily arbitrary, whatever they are,

Q. There is one other thing I want to call your attention to: it is in evidence in this case that the interstate passengers are 4443 carried largely on local trains: it is also in evidence that

local trains stop much more frequently than do the through trains: would not there be an increased expense in starting and stopping applicable to the trains that carry the local passengers, which is also unfair as a basis of division, as between those two classes of passengers.

A. I have not gotten to the point yet where it is sought to divide

it between them.

Q. I did not mean in the general division, but I mean in dividing the expense between the cars that carry these passengers, if you wanted to get at it on this method, should you not, instead of doing it by the cars, ascertain the expense of service connected with those cars?

A. No, sir, that is not applicable to this sub-division, because this

is just a division between coach, mail and express car miles,

Q. I just wanted to call your attention to it. Pass on them to the next.

A. Sub-division "C" provides for the application of percentage brought about by the four classes of car miles, and those percentages are used to divide the supervision and general expense appertaining

to maintenance of equipment.

I want to explain that in this account has undoubtedly been included all of the shop expense, repairs to and use of tools, fuel, the mechanical supervision of shops and terminals; and it is sought to apply this car mileage, irrespective of locomotive mileage, or aside from considering the locomotive as a factor.

4444 I want to say that it is not an over-statement to say that in the shops 90% of the tools are provided for and are used in connection with locomotive repairs; that the expert men who are selected for the mechanical department are chosen because of their familiarity with machinery or locomotive repairs and maintenance; that 90% of the detail drawings made by the Motive Power Department employees, and 90% at least of the accounting handling by the office force, and the general correspondence and records, has relation directly to locomotives.

There is not the same degree of intelligent supervision required

with regard to coach repairs.

And when it is sought here to eliminate the most important feature of the supervision and the use of the shops, it makes a very unsatisfactory sub-division.

Q. What is the next sub-division?

A. In division No. 3 "Traffic Expenses," and I would say practically the whole objection to this division is the fact that it has introduced into an equation already proceeding along another line, an entirely different basis, in that the gross earnings have been applied.

I do not contest their fairness, but I do feel that its introduction

into this problem renders the whole inconsistent.

Q. I want to call your attention to the fact that this third sub-division, "Traffic Expenses," has included mail and express, and charged 19.33% of that expense to mail and express jointly:

Do you think it is proper to charge that expense to those cars?

A. I have tried to express that in my criticism.

As I say, if the theory were consistent with itself, I would have

no objection to that.

But to set out in this one account alone and apply the gross revenue, to arrive at percentages and charge in the one element of expense alone, this amount against mail and express cars, is unfair, in my opinion.

Q. As I understand it, that represents commercial agencies, and things of that sort; agencies to hunt up business; and that expense is not incurred for the purpose of getting mail or express business by

railroads, as I understand it.

A. It is so small as to be infinitesimal.

Q. Go on to the next item.

A. Division 4 of "Transportation Expenses" sub-division "A" covers station expenses and this is divided between intrastate and interstate business on a basis of the number of passengers of each class handled, after first making an arbitrary deduction of ten cents per day for the handling of mail at certain stations; and as-

4446 suming further that the intrastate passenger uses two termi-

nals as against an interstate passenger's use of one:

My criticism of this is that it primarily assumes that the station cost of handling intrastate passengers doubles, which is not carried through any of the other sub-divisions.

Further, it assumes that an intrastate passenger occasions only

twice the expense of an interstate passenger, which is wrong, for this reason.

In order to intelligently answer that question I want to ask what is the average haul of these interstate and intrastate passengers.

Mr. Johnson: The average haul on the Iron Mountain of state passengers is thirty miles, and of interstate passengers 118 miles.

The average haul on the Cotton Belt of state passengers is 23 miles, and of interstate passengers 12 miles.

Mr. Gray: Is this ten cents a day an assumption, or is it sup-

ported by evidence?

Judge Hall: It is supported by the evidence of Mr. Teachout, the General Mail Agent of the Iron Mountain, who testified before the Postal Commission in Washington, that that was the proper allowance, and our accountants accepted him as an authority on the subject.

A. I would not agree with Mr. Teachout that that is a fair allowance. I think it is a violent assumption, because at some stations we handle mail across the road, and the mail does not amount to much. At other stations we handle it

in some proportion of eighty rods and it is very heavy.

This necessarily assumes that except for the allowance on the terminal, the passenger who traveled 30 miles costs as much in proportion as the passenger who travels 118 miles, on the Iron Mountain; or that the intrastate passenger who traveled an average of 23 miles as against the passenger who traveled an average of 121 miles on the Cotton Belt road. This, in my opinion, is unreliable because in the 118 miles on the Iron Mountain and the 121 miles on the Cotton Belt are a large number of passengers who did not use the stations, or station employees, at any point in their transit through the State.

It is a fact that that the intrastate passenger will average a greater amount of damage to baggage. It is more frequently a commercial salesman who makes short trips inside the State, with a large amount of baggage.

It is a fact that a passenger going five miles will use every portion of the depot facilities, baggage trucks, the length of the platform and the scales; and that the passenger going 300 miles will board the train with his valise.

I think it is fair to say that is an extreme of the two, but it is representative of what we find in our business every day.

With the short haul comes the greater proportion of the The shorter the one haul is, the greater the other haul becomes, and the greater becomes that difference in the expense.

I want to say before I leave this one article, that of all the divisions which I have had occasion to criticise in this matter, this is the closest approach to being somewhere near a correct allowance. It is unfair only when taken in consideration with all the balance.

Q. I want to call your attention to the items that are embraced in yard and train expenses. Look at this paper and state what is embraced in those.

A. This expense includes-

Judge HILL: To what are you referring?

Col. Moore: Mr. Nay probably testified to it, and I want Mr.

Gray, if he knows, to state whether that is correct.

Judge HILL: What I want to know is what you are putting before Mr. Gray as contained in that heading. If it is an exhibit refer me to the number, and if it be testimony refer me to that.

Col. Moore: I handed this paper to Mr. Gray for the purpose of

asking him if those items are included in that.

A. I cannot do that Col. Moore. Q. I will ask Mr. Johnson.

4449 Mr. Johnson: Those items make up the \$549,069. It

is merely an analysis of the different items.

Judge HILL: That is what I want to get. Mr. Johnson: You want the items?

Judge HILL: Yes.

Mr. Johnson: Yard and train expense under the heading of passenger service includes the following items-

Judge Hill: Is that the Interstate Commerce Commission

classification you are using?

Mr. Johnson: No, it is the classification used in this case:

Yard service	,124
Train and engine men	,772
Fuel and other train supplies 135	,712
Care of passenger cars 50	,600
Engine house expenses 46	,499
Wrecks 17	,879
	,128
Damage to stock and property 39	,264
Miscellaneous items 5	,088
Andrews Communications and Communication and Communication and Communication and Communication and Communication and Communicat	

549,069

These items are made up from the Interstate Commerce Commission classification primarily, and then adjusted to meet the Missouri Pacific classification, as has been explained already in this case

The total is

4450 Mr. Gray, resuming:

A. (after examining statement): This portion of the expenses is divided under this theory by assigning to the coach, Pullman, mail and express in the proportion that the mileage of those classes of cars bears to the total mileage of all the passenger cars.

It eliminates the locomotive as a factor, although it includes injuries to persons, in which the locomotive cuts a very considerable

figure.

It divides engine house expenses on a car mileage basis, which assumes it costs three times as much to clean, knock the fire, and possibly fire up on an engine which had handled nine cars as it does on an engine which handles three cars—which is not true; that the proportion of fuel and the proportion of train and engine men

does not bear a true relation to the number of cars handled, but more particularly to the class of engines used.

Train men being largely paid on the train mile, engine men on the engine mile, but subject to variation according to the type of

engine used.

It is erroneous, in my opinion, as affecting yard service, because one train of four cars will frequently receive more attention at the terminals in the way of switching than will a through train of nine cars.

It applies a car mile proportion to wrecks, which in the shape of passenger trains at least is not affected by the number of cars handled. Our experience being that so far as derailments are concerned, at least, by far the greatest percentage is

due to derailments of the tender, which is a part of the locomotive, and which has not been included in this computation.

Sub-division "C" seeks to divide the lost and damaged baggage between the intrastate and interstate in proportion to the gross earnings of each: it seems to me if it were desired to be specific, here is one item which could be.

But it is chiefly objectionable, in my view, because it employs another factor or method which is injected into a theory, that is not

consistent with it.

Sub-division "D" provides for a division of all the remaining expenses, supervision in general, on a basis of what purports to be two charges, which includes the car mileage, as I have already enumerated, and cetrain expenses which are assumed to be directly chargeable to intrastate and interstate; and from this another percentage has been arrived at.

This account includes the cost of superintendence of transportation; salaries of the Superintendents; a portion of the salary of the General Superintendent, and their respective offices; all of the Superintendent of Car Service or Transportation, with their offices:

Now, to apply this theory we have got to assume that in this supervision, where the dispatchers deal entirely with trains as units, where the Superintendent of Transportation and his clerks deal entirely with cars as units, that the expenses are to be sub-divided upon the car mile basis.

I think it is well to say in passing this sub-division, that a good proportion of those expenses is for dispatching and it has no rela-

tion whatever to the car mile.

One of the principal objections, however, is the fact that this is built up out of conditions which it seems to me are subject to criticism for the reason I have given, and that the percentage now arrived at is from a variety of causes, which have no relation to each other and are not one hundred per cent of any one thing.

In division 5 it provides for the general expenses, and that proportion of the general expenses chargeable to passenger is sought to be divided upon still another per cent, which is the result of an addition of the last percentages to those of each account.

If the car mile basis is not proper, for the reasons I have stated, it applies with greater force in the last two, numbers four and five,

because they have been distorted at the foundation, and the inequalities are even greater at this stage.

In divisions 6 and 7, having reached this point where we have coach, intrastate and interstate, it is sought now to make a 4453 final division of the cost of coach and Pullman service, which

has heretofore not been divided between intrastate and interstate business, using as the divisor in this case the percentage of the passenger miles of each class of traffic for this six months period:

The objection to this is, the same as I have urged to the preceding paragraph, it has all of the objections which I have urged to the car mile basis; it is in my opinion valueless because in this percentage has been placed the passenger miles which were handled in Pullman cars and which were handled in caboose cars.

Q. You mean passengers?

A. Yes, sir. The passenger miles which were handled in Pullman cars and which were handled in caboose cars, and which must have been an unknown quantity.

This division presents the further objection that in its last analysis there is no consideration given for extra cost of service intrastate

versus interstate.

It proceeds further to divide cost of Pullman service (which has been previously arrived at on a car mile basis), upon an arbitrary assumption that 25% was intrastate and 75% was interstate.

I am not able to say whether this is correct or incorrect; nothing in my experience would justify either figure conclusively or with sufficient accuracy to divide over \$300,000 worth of expenses.

In division 8 the results of these various computations are carried and added to the cost of the intrastate and interstate which had been previously located.

The mail and express business has been charged in that proportion of the total cost which the mileage of the mail and express cars

bears to the total car mileage.

It must be remembered that the mileage used is that of October,

1907, being one month of the six months' period.

In this division is a proportion for the miscellaneous revenue, taxes, rentals, hire of equipment, dining car deficit, value of property, and the gross revenue has been used in determining these:

My comment on that would be that it is not a consistent theory which swaps from one basis to the other, and that under certain conditions the allowance by the state in this case would be unfair to the state; while under other conditions it would be unfair to the railroad; that it is chiefly objectionable from the fact that it is not upon the same basis as the major part of the theory.

The chief result of these theories in the passenger side of the ex-

pense is in the result, and a think it is fair to judge by that.

Take, for instance, the matter of express earnings: if there is any department of the railroad's income that represents the least expense to the dollar received, it is the express business.

The determination of the space allotted in the train upon which this express is carried is determinable by the rail-road.

Ordinarily an express contract provides that the Railroad Company shall allow space at the stations, if it has the space to spare. No contract that I know of expressly provides that the Railroad Company must furnish this at its expense, as in the case of the mail; there is no arbitrary allotment of space on a train for the express as in the case of the mail. There is no arbitrary allotment of space at the stations. No railroad employee is required to handle a pound of express, as is the case with mail, where the distance is less than eighty rods from the post office, or as is the case at transfer points, where the entire cost is borne by the railroads.

And yet the deduction which this theory finally results in is that

it cost \$172,475.77 to earn \$133,910.82.

Q. Does this method of division of passenger expenses between intrastate and interstate passengers, if it were correct in principle, provide for the increased expense of intrastate passengers over interstate passengers?

A. It does not, in my opinion.

If you will permit me to say, Judge Moore, it is further objectionable because in the manner of reasoning employed there has been an undue amount of expense attributed to the miscellaneous earnings, such as mail and express.

4457 Cross-examination of Mr. Carl R. Gray.

By Judge HILL:

Q. It seems you have approached these exhibits from a little different viewpoint from what they were put in. I gather from your statements that you regard these exhibits as an attempt to absoluely divide all traffic between local and through and subsequently between state and interstate, as something of an ironclad rule on that subject, do you not?

A. I do not believe I understand that question, Judge Hill.

I regard these (indicating exhibits) as setting up certain conditions and assuming certain arbitrary conditions as facts, which in their nature are hard and fast.

Q. I want to call your attention to the testimony of Mr. Wharton, at the time he put in his exhibits, explaining the plan upon which

the work had proceeded:

He said "From the reading of the testimony in the Missouri Case and my understanding of the purport of that testimony, it appeared all the time that the differences in the cost of state and intertsate business were mainly the differences in the cost of local and through trains. The witnesses all seemed to testify that way and we determined that if it was possible we would work up statements showing the cost of local and through business and after getting that cost, we would ascertain in the best manner

4458 possible the cost of state and interstate business carried in the two classes of service; in that way getting away from any question of theory, but getting down to an application of the facts and of the testimony given in that case and subsequently given in this case."

So you see from that it is an attempt—whether successful or not I will discuss with you later—but it is an attempt to apply this formula to the testimony that had been given in this case.

A. I do not agree with that, except in part.

The testimony that I gave and heard in the Missouri Rate Case, did regard the local freight train as a very material consideration, but never as wholly fundamental; and only as one of the incidents affecting the excess cost.

Q. That is true of your testimony which is given in that case, but I want to call your attention to the testimony given in this case:

You know Mr. Doddridge, do you not?

A. Yes, sir.

Q. You know that he has been General Manager of both the railroads that are parties in these proceedings, the Iron Mountain and the Cotton Belt?

A. I remember that.

Q. You would regard him as qualified to speak for operating conditions on the Iron Mountain and the Cotton Belt, would you not?

A. As to operating conditions, yes.
 Q. Here was his attitude in this case:

At page 28 of Volume 2 of the printed record he was asked these questions:

4459 "Q. You were employed by the Missouri Pacific in the Missouri Rate Cases, were you not?

A. Yes.

Q. You attended practically all the sessions of that hearing, did you not?

A. I attended a great many of them; I did not attend all of

them, but a great many of them.

Q. You were in constant attendance at those hearings, though, whether in daily attendance or not?

A. Yes.

Q. You acted in an advisory capacity towards the counsel and the other expert witnesses in that case, did you not?

A. I acted as an advisor to the counsel and discussed some of

these questions with a good many of the witnesses.

Q. You have occupied the same relation in this case, have you not?

A. Well, yes, but I have not had any conferences with any wit-

nesses in this case."

Now, a witness occupying that position in this case and putting forth his opinion, would not you think the state would be entitled to rely upon that?

A. That is hardly a question I could answer. I do not know what Mr. Doddridge's opinion may have been. If I am given his

opinion I will comment on it.

Q. I will give you that directly, but before we get to that, I am asking you if in making up these exhibits, if you take the statements of a witness who has had the experience Mr. Doddridge has, and who testified as he did here which I have just read you, that he acted in

an advisory capacity to the counsel in both the Missouri Case and this case, that the state would be justified in taking his opinion in preparing their exhibits, would they not?

A. I still want to say I would express my opinion of Mr. Doddridge's value in this manner purely upon operating conditions. believe he is familiar with the operating conditions as they obtained on the Cotton Belt and on the Iron Mountain road at the time he managed those railroads, but I do not believe Mr. Doddridge is in any better position by virtue of his managing those properties, to testify in the matter of a division of cost or a matter of the method of arriving at that than any one of the operating officials of todayperhaps not quite so much.

Q. That is getting away from my question-unintentionally I

am sure.

A. Yes, if I have done so it is unintentionally.

Q. My question is not how you would view Mr. Doddridge, but I ask you if the state would not be justified, in view of the relation which he occupied to these roads and to these cases, to accept his statements given as a witness in these cases, to prepare exhibits from? I am asking you from the viewpoint of the state and not from your viewpoint?

A. I would say that the state is justified in giving weight to a

statement made by Mr. Doddridge,

Q. Mr. Gray, I want to read to you from Volume 2 at page 59 of the record, from Mr. Doddridge's testimony, as follows:

"Is not the only difference in cost of the intrastate and interstate freight carried on the same train, the one of the 4461 extra terminals?

A. There is no difference in the cost of one kind of freight or another kind of freight, arising from a distinction in the terms "state" or "interstate."

If the conditions are the same there would be no difference in the cost.

Q. Take freight carried on the same train?

A. Well, I say, if the conditions are the same; that is, the kind of freight, and all of the other elements that enter into it, there would be no difference arising from the terms "state" or "interstate." But the conditions must be the same to say that there would be no difference in the cost, because there might be difference in the con-The character of the freight, the weight, and other things.

Q. Take it, the same kind of freight and of the same character, carried on the same train, where is the difference, except in the

terminals?

A. There would be no difference in the train cost."

I want to read to you from the testimony of the Frisco case:

"So far as the particular freight is concerned, carried on those particular trains, there would be no greater cost in transportation for interstate freight than state freight, except the terminal charge.

In order to ascertain the results correctly, you would have to take into consideration the amount of state freight that is carried upon that train, as applied to the total state freight carried on the other

In other words, what I mean to say is, we have to take into consideration all the trains and find out what relation the state freight bears to the whole."

And then Mr. Doddridge was asked this question:

"That is a correct analysis, isn't it?

A. Yes, sir, I think so."

Q. Do you agree with that, Mr. Gray? 4462

A. No, sir, I do not.

Q. You do not regard that as correct?

A. No. sir.

Q. You know Mr. I. G. Rawn?

A. I knew him quite well.

Q. He was an operating man of a great deal of experience, was he not?

A. Yes, sir. Q. Mr. Rawn said at page 368 of this record:

"For the purpose of determining the cost of operation of tranportation, the question of state and interstate traffic is not the method of consideration. The method is that of through and local business."

Would you agree to that proposition, Mr. Gray?

A. Not without qualification.

Q. Without taking up in detail the testimony of other witnesses introduced by the railroads, I will state that Mr. Edmund D. Sewell, and probably two or three others, I do not recall them all now, testified in substance the same thing. That there was no difference in the state and interstate per se, but the difference was in the character of the service, whether it was local or through; and in order to determine state and interstate you had to ascertain the local and through and the proportion of state and interstate on the local and through trains.

Do you agree to those propositions?

Mr. MOORE: I want to state in connection with that, that while I do not object to it as an assumption on your part, 4463 Judge Hill, I disagree with yau as to your understanding of the effect of the testimony.

Judge HILL: That is the way I understand the testimony and I

put it that way as my understanding of the testimony.

Mr. Moore: I don't want my silence to imply that I agree to that because I have a different understanding of the testimony.

A. My answer is that if the position has been taken by those gentlemen, that there is no distinction between interstate and intrastate freight, that does not equally apply to the through and local, that I dissent-I do not agree with them.

Q. You spoke several times yesterday of the inconsistency of

the state's accountants in various ways:

I will ask you what you think of the inconsistency of the railroads in this case, putting Mr. Doddridge and Mr. Rawn on the stand and proving these facts and then putting you on in rebuttal to take a different view of the same proposition?

Col. Moore: I do not concede that the railroads have taken

different positions. You are arguing with the witness.

Judge Hill: I am asking him about the views he expressed yesterday and I have read the testimony of Mr. Doddridge and of Mr. Rawn.

You disagree with that, Mr. Gray?

Mr. Moore: You have read only scraps of the evidence.

A. I disagree with what you have read of their testimony, if it is without qualification.

Judge HILL:

Q. Going back to the consistency of their position: after having heard that testimony what do you think of the consistency of the position of the railroads in putting them on and then putting you on and proving a different state of facts?

A. Your statement that they have proven anything by me, is

a compliment to me.

I say in a situation so complex and so unnatural as this, it is not a surprise that the railroad men might disagree.

Q. That still does not answer the proposition of the inconsistency

of the railroads, does it?

A. I do not know that I can comment on the consistency or the inconsistency of the handling of this case by either side.

Q. Did you not comment on it yesterday?

A. No, sir. I commented only upon the consistency of this theory with itself (indicating exhibit); or its inconsistency with itself and not on any attitude of the state or of the railroads.

Q. Is not that the same proposition here, where you see testimony of the witnesses introduced on behalf of the railroads, that express different views on those subjects from those you express?

A. Is it competent for me to comment upon that?

Q. I don't know whether it is or not, but you commented upon a similar thing yesterday and if it was competent yesterday, it is today.

Col. Moore: I object to the question as putting the witness in an attitude that I think is really not proper.

Judge HILL: You opened up this thing.

Col. Moore: It bears no resemblance to the comments made yesterday by the witness upon the exhibits because he was contrasting or comparing one feature of the exhibit with another feature of the exhibit; and was not commenting upon the consistency or inconsistency of the management of the case.

Judge Hill: I am not referring to the management of the case but to the inconsistency of the positions taken in chief and in rebuttal.

Do you think they are consistent, in view of what I have read you here?

A. We are consistent, I think, to a certain point.

I do not believe the witnesses you have quoted have gone as far as they should have gone in considering this question.

Col. Moore: You are confining that to what has been read to

A. Yes, sir, I am confining it to what has been given to me. By what you say they have assumed to take as a fundamental what I regard as only one of the incidents.

Mr. HILL:

Q. Mr. McPherson testified in this case—I suppose you know Mr. McPherson? 4466

A. Yes, sir. Q. You know his relation to the Iron Mountain road? A. Yes, sir.

Q. Mr. McPherson testified, as I recall his testimony, that there was no difference between state or interstate in itself. There was no magic in the state line; and that it resolved itself into a proposition of extra terminals and long and short haul: do you agree to that?

A. I agree to that a little more than I agree to the other statements you have read, because I think he is bringing in some of

the other elements.

Mr. MOORE:

Q. You have not stated anything like all of Mr. McPherson's testimony. He spoke of the difference between car load and less than carload and a great many other elements that should be considered.

Judge Hill: I can turn to his testimony if you wish?

At page 398 Mr. McPherson was asked this, after going over this

question of facilities and other matters:

"Your reasoning then, in its final analysis, places the difference in these classes of traffic, intrastate, interstate and trans-state, upon the difference in the length of haul and the use of the facilitiesterminal facilities, I mean?

A. And the consequences.

Q. Well, that would be included in it, I take it. There are no other factors now that have influenced your judgment in this matter?

A. Yes, there are many other factors that have influenced

my judgment. 4467

Q. I would like to have them.

A. I don't know that I can reduce them to figures. They are matters of observation." That is the substance of his views: do you agree to that?

A. I agree to it so far as it goes.

I think he has stated correctly the distinctions, but, if he has assumed that any of those alone are fundamental, I do not agree with him.

Col. Moore: He has not done that.

Judge Hill: That is a difference of opinion. It is too tedious to take it all up in detail.

Q. Mr. Gray, you spoke yesterday of the lapovers, one might call them, where you would use one month's figures. I understand that this month of October, 1907, which exhibit was put in by the railroads, and which was subsequently used by the state, was an analysis of one month's business: you object to the use of one month in the way it was used. That is, of ton miles of freight on the local trains obtained from the conductors' wheel reports and waybills and then deducted from the total tonnage of the freight accounted for in the Auditor's office during that month, to thus obtain the ton miles of the through trains. That is what you objected to, was it not?

A. Yes, sir.

Q. Now, it seems that the railroads in making this exhibit took all of the system waybills dated in October, and on interline forwarded they took all such as were reported from all stations to other lines; and on interline received they took such as the agents reported as received as October business.

A. That is right.

Q. That would leave lapovers, would it not?

A. It would leave lapovers in interline received as well as in interline overhead.

Q. The inaccuracy in this statement would be in the railroads' compilation in this way, and not inaccuracy in making up the intrastate from the conductors' wheel reports, would it not?

A. The accuracy in this deduction is in what you mention, the

information from the conductors' wheel reports.

Q. That is an accurate factor, and factors made up by the rails roads in the way I have read you here, which you recognize as correct, is where the inaccuracy would be? That is, you mean so far as the actual movements of the freight would be concerned?

A. I mean, it is inaccurate as applied to the results of that month. Q. Now, Mr. Gray, suppose the intrastate revenue for a given period was compiled from journals which were copies of the waybills, which were dated in a given period, so far as system business was concerned; and the intrastate interline which was reported during

that month was added, so as to make the total intrastate revenue: then deduct from the total earnings for a given period this sum, and the remainder represents the interstate earnings for the given period: would the revenue so computed as a true compilation of the revenue actually earned on interstate freight transported during that given period be accurate?

A. It would be accurate so far as money was concerned. It would not be accurate as affects this application even to the operations of that month; and certainly not accurate enough to be used as a

gauge for a period of months including that month.

Q. That would have the same objection to it, so far as its effect is concerned as the objection you have heretofore pointed out about this other.

A. I want to be sure that I understand your question, Judge Hill:

You mean the objection I have pointed out for using one month as a basis for determining the results of a six months' period?

Q. Yes.

A. Your question now is, does not this present the same objection?

Q. Yes. A. I say, yes.

Q. You object to the use of ton miles compiled by the Auditor during any period, as not being the ton miles actually transported during that period. The Auditor would compile his revenue

figures from the same waybills that he took his ton miles 4470 from; therefore, the Auditor's revenue figure for any period would not be the revenue actually earned on the freight transported

during that period: is that correct?

A. I do not want to be misunderstood on that matter, but I object to the Auditor's ton miles figures for October being used as a basis, after deducting from those ton mile figures the actual conditions proven to have taken place on local trains and that deduction of a certainty being made from an uncertainty.

My objection was to the application of that principle throughout

a six months' period.

Q. I understand that. But this is going, I think, to the same principle, carrying it to another application of it. That is, you take a given period, whether that given period is one month or six months, two months or three months: if you take a given period to use the ton miles compiled by the Auditor during that period, as represented by revenue, they are not the ton miles that represent the freight actually transported during that period?

A. That will nearer approach accuracy as the term is lengthened

out.

Q. That is true. The principle is that you object to any given

period being used in that way?

A. Yes, sir, and my principal objection, Judge Hill, as I stated yesterday, is the selection of the particular months, and the further action of the state experts in arriving at the actual conditions and deducting the exact ton miles from what was not exact, as representative of that month's operation.

Q. I understand that. And I am just carrying that same prin-

ciple now to this other proposition.

Suppose you took the statistics made up in this way of a six. months' period to represent a six years' period: would not that be equally objectionable as representative of six months, as one month would be objectionable as representative of a six months' period?

A. That would depend upon the railroad and the conditions. I would say that if you apply any deduction to a six years' period it should be deductions based upon the entire years' experience.

Q. The expense of this period is actual. That is, represents the money actually paid out during a given period, say a six months' period.

The revenue derived in the way it has been put to you would be for some freight not transported during that given period, would it not?

A. That is a fact.

Q. There would be freight in that—say it was a six months' period, last half of one year—there would be freight in that transported in July that was billed in June, wouldn't there?

4472 A. Yes, sir, that is right.

Q. And tha reight would go into the revenue report for June?

A. Or whenever it was reported.

Q. And on the other end of the period there would be revenue credited to December, when the actual movement took place in January or later; that is, a part of it at least?

A. Yes, sir, that is right.

Q. So, if you take any given period and take the expense of that given period, that expense does not actually represent the cost of earning the revenue that is made up in this way?

A. With this qualification, that the longer the period the more

nearly it approaches accuracy.

Q. That is unquestionably true.

That would just make the lap-over thinner the longer the period taken?

A. Yes, sir.

Q. But the principle would be the same, would it not?

A. No, sir, that would depend upon the period taken. That would be affected in the degree that the proportion of interline received and interline overhead bore to the total, and is seriously affected by that.

Q. The principle is all right. It is just a question of degree, is

it not?

The principal objection you have made here, applies equally to this revenue and expense, but runs into the question of degree, depending upon the length of the period that is taken?

A. My principal criticism of that, but not my fundamental criticism of the theory;—my principal criticism of that yesterday was, the assumption that the condition in October, 1907, could be used as a basis for determining the results in the last six months of 1907. But that was not my sole criticism.

Q. I do not so understand it. I understood that was just one of

your criticisms.

A. Yes, sir, just one.

Q. I believe if I can call it your principal criticism, it was to using one month as being good through a period?

A. No, sir, that is not the principal criticism. That is a strong feature of my criticism but it is not fundamental.

Q. Why is it not fundamental?

A. Because it is only one of a number of objections.

Q. I want to call your attention to some testimony which has been given in this case: you know Mr. Kimbell, the Assistant General Auditor of the Cotton Belt Road?

A. No, sir.

Q. You recognize him as a gentleman who would be qualified to

speak of the conditions on his road, would he not?

A. Well, with all respect to Mr. Kimbell I think there are some things on the Cotton Belt that he possibly does not know and could not know.

Q. You would regard him as a qualified witness on con-4474 ditions on the Cotton Belt, as to revenue and expenses, would

A. As to the money involved and accounting for that.

Q. What is paid in and what is paid out?

A. Yes, sir, I would.

Q. At page 80 Mr. Moore asked Mr. Kimbell this question:

"Did the operating officers of the St. Louis Southwestern Railway Company make a test at any time after this litigation was instituted, for the purpose of ascertaining the relative cost of conducting state and interstate transportation? If so, I wish you would state what was done in that respect?

A. A test of that kind was made under my direction.

Q. What period did it cover? A. The month of October, 1908. The temporary injunction was granted in St. Paul on September 3rd, and the month of October was selected for the purpose of this test, on account of it being the first full month following the injunction. October is rather a heavy month, but for a test of this kind, in my judgment, it fairly represents the general conditions."

Then Mr. Moore asked this question:

"Q. Would it represent, fairly, a year's business?
A. I should say so. It would represent relatively, the difference between the two classes of traffic."

Do you agree to that, Mr. Gray?

A. Being wholly without knowledge, I do not see how I could dissent from that, my understanding being that Mr. Kimbell has talked there about relative business of the Cotton Belt, this being a representative month as to income, and representative per-

haps as to the relative relation between state and interstate traffic; but I would not imagine he would testify as to con-

ditions on the Cotton Belt Railroad.

Q. I will read you a little further what Mr. Kimbell testified. At page 92 counsel for the state asked him this question:

"Do you think that one month would fairly represent the business of your line for a year?

A. I think for the purpose of a test of that kind, determining the relative difference between the two classes of freight, that one

month is perhaps as good as another.

Q. Why did you select October? A. As explained it was the first full month after Judge Vandevanter granted the injunction. He granted it in September, September 3rd; we wanted to make this test as soon as possible, so we selected the first full month.

Q. In your judgment, a test of this kind, made for the month

of October, would fairly represent the operation for a year, or for a series of years?

A. I should say so,"

Would you agree to that? A. No, sir, I would not.

Q. I believe you expressed yourself yesterday as disagreeing with that principle, did you not?

A. Yes, sir, I do not agree with that.

Q. What do you think of the consistency of the railroads putting their assistant general auditor on the stand to prove these facts and subsequently putting you on the stand to express very different views?

A. They have not asked me my view on that, Judge Hill;

and perhaps I am just as much surprised as you are,

Q. Did not they ask you your view yesterday and did you not express yourself that one month would not represent a year's business or for a series of years?

A. That is what I referred to. Q. I am referring only to what developed here and not what was

Is not that an inconsistent position to place their assistant general auditor on the stand to prove that one month was fairly representative of a year or a series of years, and then put you on the stand and prove that in your judgment it was not?

Col. Moore: We object to the question, but you may answer it, Mr. Gray.

A. Your question, as I understand it is, do I not regard the railroads' action as inconsistent, in proving one thing by the assistant general auditor of the Cotton Belt and proving another thing

by me.

It seems to me that the railroads could not be charged with inconsistency, because I as an operating expert entertain an opinion on an important question like this, presenting a good many complexities, differing from the opinion of an accounting expert. It is not infrequent that these departments do clash as to their opinions, and not unnaturally.

Q. That is not quite the proposition, Mr. Gray.

They have put forward this month's test and proved by 4477 Mr. Kimbell that that was fairly representative for a year or a series of years and then used the figures given in that test by nearly all the witnesses for the railroads to prove the situation as presented by that test.

Mr. Moore: I think it is fair to explain, Mr. Gray, that when Mr. Kimbell testified that was a fair test, he was speaking solely of the difference in the cost of handling state and interstate business.

Judge Hill: I understand it so.

Col. MOORE: And he says in his opinion the month adopted by him would afford a fair test as to the difference in cost of handling two classes of traffic.

Judge Hill: That is true. That is exactly correct and I think I have made that clear to Mr. Gray.

Col. Moore: You have not made it clear.

Judge HILL: I intended to.

Col. Moore: I know you intended to but I do not think you were entirely clear.

Judge Hill: He is speaking of revenue and expense both, on a

year's business.

A. I do not believe there could be such a test that would be anything more than interesting.

Mr. MOORE: You think such a test could not be made at all? Is

that what you mean?

A. Yes, sir.

Judge HILL:

Q. In addition to this test on the Cotton Belt, the Iron
4478 Mountain worked up the total figures of their business for
the month of October, 1907, and put that into this case as
Exhibit 26; and Mr. McPherson and various other witnesses on behalf of the railroads have used the statistics as shown in that exhibit
to illustrate their position in this case; in view of that fact, would
not the state be justified in taking the statistics thus prepared by the
railroads and introduced by the railroads and used by the railroads,
as fairly representative of the conditions in that period?

Col. Moore: I will state now that Exhibit 26 was brought about at the request of the state, at a conference held in Judge Trieber's chambers at Little Rock. I do not recall now to just what extent Mr. McPherson or any other witness introduced by the railroads has used it; but they have not used it to any such extent or for the purpose of the exhibits to which your attention was called yesterday.

Previous question read.

Judge HILL:

Q. Would not the state be justified in using those figures to illustrate its position as to conditions in that six months' period?

Col. MOORE: That Exhibit makes no effort to separate as between local and through trains.

A. I know what Exhibit 26 is.

As I understand it, Exhibit 26 is Exhibit I of the state: is not that a fact?

Col. Moore: No, sir, Exhibit I is based on one column of Exhibit 26.

A. Without attempting to comment upon what use the railroads have made of this data for the month of October, 1907, I still believe it is unreliable and undependable to apply its results to a six months' period.

Q. That is indicating your views, Mr. Gray?
A. That is what I supposed you were asking for.

Q. I asked you if in your opinion the state would not be justified

in using that which the railroads had selected, the month of October, as the period which would make up a full statement, and after the railroads had introduced it in evidence and after the railroad witnesses had used those statistics to illustrate their views as to the situation in those six months. Then would it not be fair for the state's accountants to use it for a similar purpose?

Col. Moore: It is not fair to state only half of the facts.

The exhibit was called for in the manner I have indicated, by the accountants in this case, and the figures at that time-and if I am incorrect Mr. Johnson may correct me-it happened that the figures for that month had been already worked up. They wanted them for three months and we refused to furnish it for three months.

Mr. Johnson: That statement Exhibit 26 was worked up by the railroads in anticipation of a request to be made by Haskins &

Sells, and for that purpose only.

I think that has been explained two or three times.

4480 Judge HILL:

Q. You took it as typical?

Mr. Johnson: We took it for one month, because we could not work up any more and we took October because it was the largest business of that period.

Judge Hill: You took it as a typical month?

Mr. Johnson: We took it as representing the largest movement

I want to say that the freight in that exhibit is not freight handled on the trains. It is made up by the auditor from the auditor's ac-The only purpose that that statement was used for by our witnesses was to show the relative proportion of the trans-state, state and interstate freight carried into the accounts.

Judge Hill: And the length of the haul?

Mr. Johnson: And the length of haul.

Mr. HILL: State and interstate?

Mr. Johnson: Of each class,

Mr. Hill: Now, Mr. Johnson, you selected that month of October to work up these statistics, did you not?

Mr. Johnson: Yes, sir.
Judge Hill: And when the state asked you for a three months' statement you said you were not willing to work that up, but you had the figures for one month already worked up, which you were willing to give them?

Mr. Johnson: I said in Judge Trieber's office that we had those figures worked up in anticipation of their request, which we would give them and preferred to give them that, rather than check up

figures which they might make.

4481 Judge HILL: You were asked at that time whether that one month was fairly representative of the six months' period?

Mr. Johnson: I said it was so far as volume of business and the revenue was concerned.

Judge Hill: Didn't you say it was fairly representative of the six months?

Mr. Johnson: So far as volume of business handled and the

revenue.

Judge HILL:

Q. Mr. Gray, my question is, after this statement was put in evidence and after it was compiled by the railroads in the way you have heard stated, and after the railroad witnesses used that statement for various purposes, to illustrate their position in regard to the statistics, contained therein, was not the state justified in using that exhibit as a basis to illustrate those same conditions?

Col. Moore: That is objected to because that is calling on the witness to make a statement about a matter which should be determined by the court and should be determined only by the court and not by the witness.

Judge Hill: I think the witness has passed upon questions similar to that, in answer to your questions yesterday and I think

I am entitled to ask his opinion about it.

A. My answer to that would be that if a month's statistical data has been testified to by the competent officials of that company as being a representative month and safe to apply to a period of six months, the state would be justified in assuming that for the basis for that six months.

Col. MOORE:

Q. You mean for the purpose for which it is being used here by the state? If the railroad accountant represented it was a proper

basis for the use that has been made of it here.

A. I meant to say, if that had been testified to by the competent officials of the railroad, which would include the accounting and include the operating officials, as being one which was safe to use for a basis for six months' business, then the state would be justified in so using it.

Q. You mean if they testified it was safe for the purposes for

which they used it?

A. Yes, sir.

Q. And not safe for other purposes?

A. I mean it is reasonable for them to think it was safe to use

it for the purposes for which they used it.

Q. Suppose the railroad officials testified that would be properly representative of six months for one purpose, and the accountants for the state used it for another and different purpose.

A. My answer must be considered as meaning that there should have been (to be of value) unanimity of opinion among the competent officers of that company, that that was a safe month to use

as illustrative of an entire period.

Q. For the purpose for which the Exhibit you criticize was used, for ascertaining the relative amount of tonnage carried by local and through trains in the month of October, 1907?

4483 A. Yes, sir, that is right.

I want to add this to that answer: that the amount of tonnage carried on local and through trains is not the only deduction which the state made from these October statistics and that my criticism extended to all of that in the same proportion.

Q. You spoke of congestion yesterday, and its effect:

A congested condition of traffic would cost you more to earn a dollar than it would cost you to earn a dollar in a normal condition of traffic, would it not?

A. That is true as respects a certain proportion of the expenses.
Q. That is the next question I want to ask you: where would the

Q. That is the next question I want to ask you: where would the additional expense represented in the congested condition appear in what accounts would that appear?

A. Aside from the traffic and general office expenses, they would

appear in all of the operating accounts.

Q. They would not appear in Maintenance of Way, would they?

A. Yes, sir.

Q. You think they would appear everywhere except where?

A. In conducting transportation, traffic; and in the general office expenses.

Q. I think we are probably using a little different terms here. In these exhibits "Conducting Transportation" is a pretty broad term.

A. I was using Interstate Commerce Commission classification.

4484 Q. What did you intend to include in "Conducting Transportation"?

A. Conducting transportation is divided into two parts by the Interstate Commerce Commission classification "Conducting Transportation Traffic" and "Conducting Transportation, operation".

I don't remember just how you show it, but I think you call it

"Traffic expenses".

My idea is that that expense is affected only in an infinitesimal way as to the general office expense.

Q. "All other expenses"?
A. Are affected more or less.

Q. You should find reflected in the expense account for everything else, except those two classes, additional expenses?

A. Yes, sir.

Q. Due to congested condition of traffic, I mean?

A. Yes, sir.

Q. You spoke yesterday of October, 1907, being a congested period: I will ask you how long that congestion lasted; when did it

begin and how long did it last?

A. My best recollection of that is that the congestion increased in volume during the summer months reached its flood in the month of October, 1907, and had almost assumed a normal condition as to the handling of traffic by the middle of January, 1908.

Q. When did it begin?

A. It commenced in the early part of 1907.

4485 Q. Then practically all of the latter half of 1907, there was a congested condition of traffic, was there not?

A. Varying in degree.

Q. But it was what you would classify as congestion, all of it?

A. Yes, sir.

Q. It would be an abnormal period, taking the last half of 1907, of railroad operation?

A. That is true. It is an abnormal period, the last half of 1907,

in railroad operation.

Q. The expenses would be heavier to carn a given amount of money during that period than during the normal period?

A. That does not follow.

It does not always follow that the expenses to earn a given amount of money are greater under those conditions. Quite frequently, and my recollection is that in this instance, they were less.

The expenses in gross were unreasonably swollen by that. But the density itself increasing the gross does not necessarily mean

that the operating expenses increased in a greater ratio.

Q. I was not asking for the ratio?

A. Your question was if it did not cost more to earn a given amount of money?

Q. Yes.

A. That does not necessarily follow.

Q. I suppose you mean by that, in a congested period the density of traffic would tend to reduce what would otherwise be greater expense?

A. Yes, sir, that is what I mean.

Q. But still the proposition remains, as I understand your previous answer, that it would cost more during a congested period of traffic to earn a dollar than it would cost during a normal period?

A. No, sir, that is not true.

Q. That is the way I understood you a few moments ago. I suppose I failed to correctly understand you.

A. If the notes show I made that statement it is incorrect, because

I did not intend to make that statement,

My position is, that a congestion will have the effect of changing physical conditions as they normally obtain, and it will have the effect of increasing the expenses in gross.

But it does not follow and it is not my experience that it will cost more to earn a given amount of money in a period of congestion

than it will in normal conditions.

In fact, my experience has been the reverse; that the ratio of expense of gross earnings would be less under this condition. But the normal operation conditions are distorted during its continuance.

Q. I understood you to say that all the expense accounts would be greater except "traffic" and "general" during a congested period?

A. In gross?

Q. Yes. The gross expenses would be heavier.

4487 A. Yes, sir.

Q. But you think the compensating density of traffic in a congested period would equalize those extra expenses?

A. Yes, sir.

Q. You would say for the last six months of 1907, that even if they were congested they would fairly represent the business of the road for a series of years?

A. No, sir, I would not agree to that. Q. What is your view on that subject?

A. I would say they do not, either for the period before or since, and practically since.

Q. They would not be fairly representative months, by represen-

tative I mean representing the business?

A. A representative month, I understood your question to be.

Q. No, I was speaking of the six months.

A. I would not regard them as being representative enough to apply to a period of years either before or since.

Q. That is the way I understood you. That answer is directed to

the six months' period, and the last six months of 1907?

A. But that they are more dependable in the ratio that they bear to the one month period.

Q. You think the six months would more nearly represent the six years, than one month would represent the six months?

A. No, sir, than one month would represent the six years.

Q. Oh, yes: six months would come nearer representing

4488 six years than one month would represent six years?

A. Yes, sir, or that one month would represent six months.

Q. That is, last half of the year would come nearer representing the six years than one month would represent the six months?

A. In the approach it makes to representing the entire year's operation.

Q. But neither of them you regard as dependable factors?

A. I would regard them as persuasive.

Q. But not dependable?A. Not as a positive basis.

Q. When did you say normal conditions were resumed following the congestion in 1907: about the first of the next year?

A. Something about the first of the year, the congestion was re-

lieved, the cessation of business activities began in October.

Q. What would you say of March, 1908: would that be a normal month?

A. No, sir.

Q. It would be a lighter month?

A. March, 1908, would not be even a representative month for March, and March is ordinarily a light month with the Southwestern roads.

Q. It would be unusually light? Its error would be on the side of being too thin rather than too thick, as October, 1907, would be?

A. That would be my recollection of that month.

Q. October, 1907, and March, 1908, then, would represent the two extremes?

Q. Yes, sir, with the further qualification that in March, 1908, every railroad was exercising the pruning knife until the operating

results in that month were not at all representative even of its business. They were trying to economize not only for that month but looking backward.

Q. Would you probably then find the most economical operation that could be found, in that month—railroads running on a cheaper

basis?

A. Yes, sir, you would find that ought to reflect, if there were no arbitraries taken in for previous months' operation—economical

operation.

Q. Taking up now the accounts you discussed yesterday, the first one is "Maintenance of way": I want to call your attention to the principle upon which the accountant worked in that case.

I do not know that I can turn right to it in the record but I will

try to state it.

In attempting to get a factor or unit with which to apportion the expense of maintenance of way they sought to get a factor which would represent the use to which maintenance of way was put. It was not represented as car miles or any other factor would measure

actual conditions, but they should take a factor which would 4490 most nearly measure the use for which these expenses were

incurred.

I will ask you if that principle is not sound. I am not asking you whether they have properly applied it, but I am asking you as to the principle?

A. No, sir, I do not think it is sound. Because it assumes to divide 100% of an expense in usage when fully 75% of that expense is not

affected by that usage.

Q. I understand that. I think the witnesses on behalf of the state put that element as high as 90% as not affected by usage but they still contended that the way was for the use of trains and the use of cars, and the same factor which would represent the use should be the factor with which to apportion the expense, notwithstanding even as high as 90% of it was due to wind and weather conditions.

Don't you think that is a sound principle. Whether they applied it correctly or not I will discuss with you later. I want now to dis-

cuss just the general proposition.

A. No, sir, I cannot agree that that is even a sound principle as applied in an effort to divide expense as between these two classes of

traffic.

Q. Take a business concern: suppose a man had a factory and manufactured two or three different kinds of articles in that factory? And his roof would get leaky and he would have to put on a new roof and he wanted to apportion the expense of that new roof into his cost properly applied to the various branches of his

business. No one of those different kinds of business he was 4491 conducting there had caused his roof to leak or rot away;

would it not be proper for him to apportion that expense by a factor which would represent the use to which that roof was put, or that building was put?

A. No, sir, I don't think so.

Q. You do not recognize that as an accounting proposition?

A. No, sir. My application of that being that if a man in manufacturing business was manufacturing coats and trousers and vests and hats and shoes, he would never in the world attempt to apply repairs on his roof to shoes and trousers, but he would, if he attempted any division, in ordinary practice he would do it upon the money involved in the transactions. Granting he had been required to divide that between shoes and trousers.

Q. Money would be one factor but would not that in itself repre-

sent the use to which that building was put.

I am not discussing with you now the different factors. I will

take that up later. I want now to get at the principle.

Isn't it a right principle to take the same factor which in the judgment of the particular individuals most nearly represents the use to which that property is put?

A. Not of necessity use. The value is as fair.

We have to assume in this case we are required to do an unnatural thing, and what is the fairest way to do it.

We conceive for a moment that this manufacturer who manufactures these different articles, and that the use made

of that building in making a pair of shoes which have a value of \$2.00 was three times as much as a coat which had the value of \$12.00, it certainly would not be right to charge a greater proportion of the repairs of this roof to the shoes, of a gross value of two dollars, as against the coat, of a gross value of twelve dollars. And yet one has really used the roof more than the other and longer.

Q. That is just indicative of your method of apportioning it?

A. No, sir, it is only in criticism of this method.

Q. I am asking you for the principle.

Would you take the gross earnings or net earnings, if you were going to take any factor,—using the factory as an illustration?

A. Following out this factory illustration, I would use the gross

value of those articles.

Q. Suppose you had stored all your shoes in the building, for six months, because the market had gone against you, and you had not sold any and you did not have any gross earnings: then what would you do?

A. That would be "Hang-over," wouldn't it? Of course there are different kinds of hangovers, but I would say that would be affected a good deal by the time that roof was repaired. It would be a question of judgment. But the fact would not be changed, this being a

factory and not a warehouse.

Q. As I take it, the only difference between us is the question of what would be the proper factor: you recognize the fact that there would have to be some factor taken there to account for this 75, 80 or 90 per cent that was due to weather or natural conditions, and which did not represent the use of the property. Would it not be proper to use some factor, and you may differ about what that factor is, which would represent the whole of that expense and not merely the 15, 20 or 25 per cent that was represented by the use?

A. Yes, sir, I say some factor should be used which would reach

the entire amount of this expense.

Q. That is the point I was trying to make.

What factor should be used on the place is a matter "the doctors would disagree about," is it not?

A. Yes, sir,

Q. Is not the car mile a known factor used among railroads for the use of joint tracks, for maintenance of way expenses?

A. I have had experience with contracts where that was used and other contracts where the train mile was used. Neither one is satisfactory.

But there is this fundamental difference: that each of the trains of the parties to these contracts are entities in themselves, and no

necessity arises for dividing those trains or those cars.

It is a custom but it is not a basis that we feel brings about an entirely fair approximation of this division of ex-4494

Q. But it is in common use?

A. Yes, sir.

Q. The car mile in some instances and in others the train mile is the common measure for dividing the expenses between the railroads themselves?

A. That is right.

Q. Are you familiar with the litigation which took place here in St. Louis between the Wabash and the Rock Island Railroads?

A. Pardon me a moment.

I wish to say also that I have knowledge of the expenses where the car is used.

- Q. The number of cars?
 A. Yes, sir, the number of cars. In that case, the car using the track for five miles would count just as much as the car using it for 100 miles. All these bases are in use.
- Q. Are you familiar with the litigation in the surburbs of St. Louis between the Wabash and the Rock Island Railroads?

A. I only know there was a long drawn out litigation there.

Q. Do you know Mr. S. T. Emerson, a civil engineer of 36 years experience and chief engineer of the St. Louis Kansas City and Colorado Railroad?

A. No, sir, I never heard of him.

Q. He testified about that as follows-

Col. Moore: What is that, Mr. Hill?

Judge HILL: The testimony of Mr. Emerson. 4495

Col. Moore: We object to the introduction of his testimony in this case.

Judge Hill: This was introduced in the testimony of Mr. Byars

and I want to get Mr. Gray's opinion about it.

Col. Moore: I objected to it then and I object now to the introduction of testimony of someone in another case being read in evidence in this case.

Judge Hill: Mr. Emerson testified as follows:

"Q. I want to state to you a hypothetical case; suppose that one railroad has a right under a contract to use the track of anoher railroad for a fair and equitable compensation, between certain points, can you tell me what would be a proper basis to arrive at such fair and equitable compensation.

A. Well, I should think it ought to be arrived at in proportion

to the use.'

Would you agree to that?

A. No, sir. Q. Then he further explains that, perhaps I had better make it

fuller before I ask you the question. He said:

"A. I mean on the proportionate number of cars run over the road by the different railroads using it. Take the total of cars used on it

and get the percentage."

A. I want to say I do not agree to that. I contend that it is absolutely a matter of barter. The desire of the applicant to use this track, the abilities of the landlord railroad to accommodate them, absolutely determine that.

And it is not the question of what is right in that matter-if that

is the question.

- 4496 If the question is at to practice, all of the three systems which I have stated to you are in practice, within my experience.
- O. Mr. Van Dyne said the wheelage basis was the one ordinarily selected for the purpose. Do you agree with him about that?
 - A. There is a great difference as to what the wheelage basis is. Q. They used it in this case as synonymous with the car basis.

A. You readily understand that is not true.

Q. That has been explained by witnesses: that they originally took the wheels and counted them, car mile.

Isn't that correct?

A. I imagine tha tthe wheeleage has commonly become an expression for car miles.

Q. That is what Mr. Hillman testified.

A. But it really did not have its origin in that.

Q. Mr. Hillman testified it originated in the actual counting of wheels.

A. Yes, actual counting of wheels.

- Q. But in modern parlance it was used as synonymous with car miles?
- A. I want to make myself clear as to the division of expenses between railroads:

If I am managing a railroad and I am approached by another railroad for trackage rights, my ability to take care of that other railroad is the first consideration I have. Whether or 4497

not I have to spend additional money to take care of that is the controlling consideration. Whether I want them at all. Whether I am advancing their interests to the detriment of the railroad I represent is another consideration. In its last analysis the matter of barter as to what terms I will grant them.

Q. You knew Colonel Talmage-whether you knew him per-

sonally or not you knew of him?

A. I knew him personally.

Q. He was a well known railroad operating man of many years ago?

A. Yes, sir, many years ago.

Q. He testified in that case as follows:

"Q. What are the usual arrangements where one road uses a por-

tion of a track of another, as to the basis of compensation?

A. It is generally based on a rental based on valuation of the property, and for repairs of track and other necessary expenses connected with the operation, it is on the basis of wheelage which represents the percentage that the tenant line bears to the other, represents the percentage that it bears to the total number of cars passed over the line."

I rather take it your views would agree with that?

A. My views differ from that to the extent that while that basis is usual, it is determined entirely by the value of the service to the applicant and the ability of the landlord to accommodate him.

Q. The question of value of rental would usually take
4498 care of the track features of it, and then the wheelage basis
would take care of the actual expenses: that would be the
idea the railroads would meet upon on that proposition, wouldn't it?

A. No, sir, not necessarily. It all harks back to the necessities

of the one and the humanity of the other.

Q. Let me give you an illustration in this case that is in evidence

here:

The Iron Mountain rents a track from the Cotton Belt road; it pays it so much rental I presume by agreement as to what was fair for rental, and then divides the expense of maintenance of way on a car mile basis.

Mr. Moore: Let me see if that is correct.

Judge Hill: Mr. Kimbell testified to that. That is the present arrangement; they formerly had a different one.

Q. That is correct, is it not, Mr. Kimbell?

Mr. Kimbell: Yes, sir, that is correct.

Judge Hill: I will ask you, Mr. Gray, in view of the fact that these two railroads after having agreed upon compensation after it comes down to the question of expense have agreed upon the car mile as the proper unit for dividing that expense of maintenance of way, if that does not present a fair unit so far as those two roads are concerned at least, to use that unit for maintenance of way expenses?

A. No, sir, it does not, because it is a basis and is used perhaps in the majority of cases; but when it comes to an analytical application it is subject to all the criticism that the car mile

and the engine mile have, and that is, that they are so varying in quantity as to be valueless as a basis of comparison.

Q. Did you include in that the train mile as valueless too?

A. Valueless for purposes of comparison, yes, sir.

Q. Or division?

A. That depends whether the train mile used in that division is analogous or not.

Q. Take passenger and freight?

A. I think it is perhaps fair as between passenger and freight on account of the fact that while one really subjects the right of way to much greater use, it does not require the same degree of maintenance, that is, the high degree of maintenance, and they come

more nearly compensating.

Q. Apply that to a single track road where both classes of traffic are using them constantly, would your answer hold good to that kind of a situation, as using the train mile as between freight and passenger, when both freight and passenger are using the same track?

A. Yes, sir, it does, because it means that while perhaps one uses it harder on account of the greater number of vehicles and perhaps a greater axle load, the other requires a higher degree of

refinement.

Q. It seems that the principle we are seeking here you agree to, you take a factor that would measure the use and you have something that would fairly approximate a proper result. Is not that true?

A. I don't believe I understand that question.

Previous question read to the witness.

I mean by that I take it your preceding answers indicate that the train mile would be the proper factor to measure the use of the roadway and being a proper measure of the use it would approximately bring correct results in the division of expenses.

A. That would be as between freight and passenger.

Q. That is what I am asking you.

A. Yes, sir, I think for the reasons I have stated that would not be unfair but it would not be satisfactory.

Q. Would it be nearly enough satisfactory to work out the basis

for division between state and interstate business?

A. No, sir, because in the one case the trains are entities and are representative of themselves. And in the other case not even the carriages themselves are representative.

Q. You understand the claim in this case, as in all of them, is that there is a certain percentage of extra cost for freight business and a certain percentage of extra cost which runs in the passenger

business, for state than for interstate business.

If you were to work out a division of expenses between state and interstate it would be necessary, of course, to separate the freight and passenger in order to work out the extra cost, would it

4501 not?

A. Yes, sir, it ought to be done.

Q. Now, what do you say to this method of doing it, using the train mile for dividing maintenance of way as between passenger and freight?

A. It presents the least objection as I see it, and is about the only method I can see where the relation between two branches of service

have anything in common.

Q. That is a question of how obnoxious it is.

A. It is violent, but to my mind presents the only basis where

the two departments come nearest to each other; that is, in the train mile

O. But that would not properly represent the relation between freight and passenger when you are seeking to divide the expense between state and interstate, as I understand your estimony?

A. That is my view.

If you will pardon me, Judge Hill, I wan to be clearly understood whether or not this is competent you all have to decide:

The criticism about maintenance of av and structures expense being divided upon a car mile basis, is that it does not take into consideration the use of these facilities by business which has no compensating car miles.

Q. That is the empties?

A. No, sir, that is the switching. It is the handling of a main line for loading and unloading materials and all of the other 4502 things that ultimately find their way into miscellaneous earnings.

But yet, they have all used this property and the physical conditions here do not reflect that they have made use of car miles.

(Witness refers to Defendant's exhibit.)

Q. In speaking of that vesterday you stated there was only one factor more unreliable than the car mile and that was the train mile—as I remember your testimony?
A. Yes, sir.

Q. Just what application were you giving to those factors in that statement?

A. I do not remember at what particular place that was stated. Q. It appears on page 703 you say:

"Then they have taken all of the freight car and caboose miles. plus 21/2 engine miles, to arrive at the total of each local and through.

Then a percentage of each has been taken to divide the maintenance of way expenses as between local and through trains. I believe there is in railroad practice only one more unreliable factor than a car mile and that is a train mile."

I believe that gives you the connection.

I would like you to explain just what application you were making of that?

A. I mean there is only one factor in railroad practice that presents a greater degree of variety than the car mile and that is the

train mile; in that the train mile will run all the way from 4503 one car to sixty; and the car mile will run from 15 tons to 120 tons.

Q. I understand that. But the point I am getting at, is the application. Were you making that remark apply to the division of maintenance of way expenses?

I understood your principle but I did not understand the appli-

cation.

A. I was meaning on the maintenance of wav and structures expense, and expected my application to be made on that.

Q. That is what I wanted to understand. For Maintenance of way and structures you would consider the train mile a more unreliable factor than the car mile?

A. As between the two classes of traffic handled on that train, ves.

Q. That is, local and through?

A. Yes.

Q. Now, that would apply of course in particular—say you had a 50 car freight train as against a three coach passenger train, wouldn't it?

A. Not with the same degree of reasoning. I have tried to ex-

plain the distinction between the two classes of service.

Q. I do not care about any repetition of it, but I just wanted to

call your attention to that phase of it.

Take up the next item, "Maintenance of Equipment." You object to the use of the car mile for a division of expenses of maintenance of equipment. You said something about it probably not being so objectionable when you divided maintenance of equipment between states as between local and through

trains. I did not quite catch your idea about that. I wish you

would explain it a little more fully.

A. There is this fundamental distinction in dividing expenses between states; on the one hand, dividing expenses between intrastate traffic and interstate and trans-state traffic handled on one train or in one car, on the other hand. That is, that these trains from one state into another or running in one state or in the other, have a degree of comparative relation to each other, which does not obtain where you are required to divide expenses of traffic where it is all handled on one train, even in one car.

In other words, my thought is that it could be properly used in one case as having a fair and just comparison to each other, where

it could not be used in the other case.

Q. Could it be used where the division between states was some eight or nine states, and you segregate the maintenance of equipment to one state out of the nine, say, or the other eight states; and then use a sum which is found by segregation, as a fair element of expense representing that given state, for that account.

A. Assuming that I would be compelled to do that, I would say on the basis of the locomotive mileage would be the nearest ap-

proach to a reasonable division.

Q. Take some eight or nine states, would not there be a good deal of difference in repair accounts of those different states?

4505

A. Yes, sir, but in the business being either directly lo-

cated it-

Q. I will take up that question subsequently. You are assuming it cannot be directly located. I am not asking you that.

I am going to call your attention to that phase a little later,

But take it just as a broad proposition, is it a fair way (and by fair I mean an accurate way) in arriving at the cost of maintenance of freight cars, for instance, to take the car mileage in one state as against nine states and subtract that car mileage from the other and use that as a factor in dividing the expense?

A. Yes, sir, I think that is the only method there is.

Q. That car mileage, of course, would be made up of the running of local and through trains, just the same?

A. Yes, sir.
Q. And you think that would be a fair way of dividing the account of maintenance of equipment between nine states?

A. Yes, sir, I do not see what difference it would make.

Q. I do not find it here in the testimony at this moment, but Mr. Rosing who was the head of the Mechanical Department, I believe, for the Iron Mountain road, testified that these items could be accurately located by going through the shops; that you could accurately locate the maintenance of equipment?

A. As between states?

4506 Q. No, not as between states, but actually.

Col. Moore: Mr. Rosing was talking about starting and stopping You had better turn to his testimony.

Judge HILL: I cannot find it at this moment. But he said you could find the cost for each class of equipment separately by going through the time books in the various shops and that that would be the only accurate way.

Take coaches for instance, take express cars and the mail cars, that that would be the only accurate method for arriving at it: Do

you think that is correct?

A. Yes, sir, I believe it is possible to determine, after having made certain—and even in that you would have to make arbitrary considerations.

Col. Moore: He means as between class of equipment and not as

between states.

A. I understand. It can be done, but even in that you must make arbitrary allowances for expenses which are absolutely un-

locatable.

Q. Suppose all of the freight cars, for instance, in the Missouri Pacific System reaching into nine states, are repaired at various shops at Baring Cross in Arkansas, Sedalia, Missouri, Hoisington, Kansas, and other points throughout their system; and that the entire cost of repairing freight cars is lumped, taken in the aggregate, and then divided between Arkansas and the eight other states, on a mileage basis.

A. What kind of mileage?

Q. Car mileage. Would you say that would be a correct 4507 way in which to ascertain the cost of repairing freight cars charged up to Arkansas, in an effort to separate state and interstate business?

A. Let me understand that. There is a "pool" made of all the

freight car repair expenses.

- Q. Yes, all of the Missouri Pacific System including the Iron Mountain. It is a "pool" of the Iron Mountain with the Missouri Pacific?
 - A. Yes, sir, it is a pool of the Missouri Pacific and Iron Mountain. Q. In nine states I believe the evidence shows?

A. And what proportion the freight car mileage in Arkansas bore to the freight car miles of the entire system is charged to Arkansas?

Q. Yes. A. I would say that is fair.

Q. You would say that is fair in an effort to get at the division of state and interstate business in Arkansas?

A. Yes. Q. If that is fair, isn't it fair then to take the car miles between local and through freight trains in Arkansas, to ascertain the relative cost betwen local and through trains?

A. No, sir, I do not think the two cases have any basis of simi-

larity.

Q. I wish you would explain why it would not have any simi-

larity?

A. The business as between states, they use the cars in 4508 just the same way. There is no distinction as between classes of traffic. When you get down to a question of dividing between intrastate and interstate and trans-state then you do, because you have the same car handling the three, and if it were a fair basis you would have no information as to the tonnage in each car,

You would get to a point now in this thing, where there is a dis-

tinction as to the amount of freight loaded in the car.

Q. Why have you not that distinction to start with?

A. Because it is not brought about by any local conditions. I am trying to make myself clear on that. I do not know that I am bring-

ing out my thought clearly.

But the one crosses an imaginary line. There is no change in the use to which it is put, until you come to the time you segregate that between freight which is purely intrastate and freight that is purely through or trans-state.

Q. No, it is between local and through trains is the question I

asked you about, not between state and interstate.

My question is this: If it is fair to get a total sum chargeable to Arkansas by taking the car mileage of those freight cars in Arkansas, made upon local and through trains alike, as a factor to separate the Arkansas proportion from the proportion of the nine states,

then is it not fair to take that same factor, the car mileage, and divide the expenses between local and through freight 4509

trains in Arkansas?

A. No, sir, no more than it would have been fair to divide it between local and through all over the entire territory.

Q. But they have done that, Mr. Gray.

A. No, sir. You have used all the car mileage which has been made by the local in the other states, where the local reasonably bears the same proportion to the through; and in the state of Arkansas where the local bears a certain proportion to the through. Then if you come to divide that between local and through in the state of Arkansas, you come right up against the average haul, and that makes the distinction.

You have not asked me, in other words, to pass upon the division between local and through in all of these states. You asked me about Arkansas, which presents similar problems to the other eight states.

Q. Is it not a fact that they are unable to find the class of trains in which a damage occurs. For instance, here is a freight car damaged and when that goes into the Sedalia shop they do not know whether that was injured in a local or a through train?

A. No, sir.

Q. They would not know whether it was done in Arkansas in Missouri or in Colorado?

A. That is right.

Q. That is the object of the "pool" is it not?

A. Yes, sir.

4510 Q. The object of the pool is to throw all of these items together, because they are indistinguishable so far as the railroad is concerned, are they not?

A. Only we know in practice, if you reduce that in all states, to through and the local, the proportion of local is going to be greater

than through.

Q. Your proposition just resolves itself into this: there is more damage to the car in the local than in the through train?

A. Yes, sir.
Q. That is what your reasoning is based on?
A. Yes, sir.

Q. If this pool is made up of cars damaged in the local trains all through the nine states and is also made up of all the cars damaged in the local train, and that represents the aggregate of all that damage—if it is fair to divide that into 1/9 I fail to see wherein it is not fair to divide it between the trains that caused it?

A. I am not making myself clear, perhaps, but my judgment is that the two conditions which you state are not analagous. The division between states all of which contain the local mileage and the through mileage, and applying that same principle as between local and through in one state, is not an analogous proposition.

Q. Why not?

A. Because in one case I must assume the relations of through and local are substantially the same.

4511 Q. Is not that a violent assumption you are proceeding upon?

A. I have got to assume something; you have given me nine states.

Q. Can you fairly assume out of these nine states the Missouri Pacific System runs into that the conditions of local and through trains are the same in all those nine states?

A. My judgment is that that is relatively enough true to justify the use of that car mile basis when dividing the pooled expenses, the position I take being that there is no other equally fair method.

Q. That is not the question in the case, Mr. Gray, whether there is any other method, but we are talking about this method.

A. The value of that depends as to whether or not there is anything else that is right and proper and fair. Q. The whole value of your opinion on this subject rests upon

the assumption that the conditions in the nine states that the Missouri Pacific System runs into, are substantially similar as between local and through trains.

A. Not of necessity.

In fairness to myself I want to state that we are confronted in this matter with a demand to divide expenses as between states and my position is that this is the only practicable way to do it—as between states. That it is not practicable to divide them accurately.

Q. If that is the only practicable way, is not that the only practicable way to divide them between the local and 4512

through trains?

A. No, sir, because it then introduces an absolutely different element.

Q. That is a question of weight?

A. No, sir, that is a question of average haul and average service

that is required by the use of the local trains.

Q. All those questions of average service, average weight, and average lengths of haul have been merged into one thing in this "pool"; they have been totally disregarded after this sum is made up?

A. As between state, yes, sir.

Q. And yet you subtract one part of that on a car mileage basis and say it would not do to resubdivide it again between local and through?

A. Yes, sir.

Q. Don't you think that is illogical, Mr. Gray.

A. No, sir, I do not.
Q. You know Mr. Rosing, don't you?
A. I know who Mr. Rosing is.

Q. I have forgotten his title?

A. He is the Mechanical Engineer of the Iron Mountain & Missouri Pacific Railway.

Q. You would regard him as competent to speak on this question, would you not?

A. Which question?

Q. What we are discussing, the division of expenses be-4513 tween states and between local and through?

A. I would not regard him as having had experience that would particularly qualify him in that respect.

Q. The railroads put him on as an expert and I suppose he was.

I dealt with him as such.

A. I believe he can testify absolutely with regard to repairs and with regard to everything that is connected with mechanical conditions.

Q. He is a shopman?

A. Yes, sir. I do not believe Mr. Rosing would claim he has had any experience tending to fit him to pass on a division of expenses between local and through.

 Q. You should read his testimony.
 A. Unless he has qualified other than as a mechanical engineer. Q. Let me read you Mr. Rosing's testimony on this point, which you and I have just been discussing:

"You found for a period of six months that \$800,000 is the gross sum—instead of calling it a lump sum I will call it a gross sum—that has been spent for the expense of repairing these three kinds of cars".

They were at that time speaking of mail express and coach).

"Now, you are called upon to divide that gross sum between one division, being one-eighth of the whole, do you divide it upon a car mileage basis? Ignore the fact that the coaches have been more expensive or the mail car more expensive than the express car. You throw it altogether and divide it upon a car mileage basis?

4514 A. I think that would be approximately correct, correct enough for the purpose but not for actual purposes. For

actual results you must take each car and what it costs.

Q. For example, say that one hundred thousand dollars is the expense accruing to Arkansas, or that has accrued within that given period. Now, suppose you want to divide that between these three different kinds of traffic operating in the state of Arkansas: you would not apportion that upon the car mile basis, then?

A. I would not apportion it upon a car mile basis at any time I have said that several times. I say, for different parts of the road, the car mile or the train mile might be as near as you can get to it. But that is not going into individual costs. You are dealing with trains in districts, and not cars. You do not run cars in districts but you run trains in districts.

Q. You do not run these cars in Arkansas, but you run them

as trains: is that the distinction"?

"A. You would compare the cars in a train, as I understand it. In districts you are comparing the trains with trains, made up of

equipment cars.

Q. That is your definition. I am not assuming it and I do not think these statistics have assumed it in this case at any time. I think you have injected that into your case although your counsel is not familiar with it.

Taking our former sum of \$100,000 and we wish to divide between coaches, mail and express cars, having reached that \$100,000 on a car mile basis, how are you going to divide it between the three classes of service?

A. By the classification of the cars and I think arbitrarily the

other would be done the same way.

Q. In other words, is not this a fact: if you use the actual figures in one case you should use them in the other?

A. I should say so.

Q. If you use the unit which is a relatively correct unit, in one case, you would have to use it in the other, wouldn't you?

A. Yes, sir."

I have read you fully so you can see the full text of Mr. Rosing's opinion on that. You use the actual figures if you can get them and if these are not obtainable to divide between states, then you could use the car miles to divide as between those three diffrent kinds of coaches.

Do you agree to that?

A. Do I understand your question to be that you want to divide between three different kinds of coaches. You have been asking me about freight cars?

Q. I illustrated the same point with him there with three kinds

of coaches?

A. I want to know if you are asking that question having previously determined the expense of repairs of those three kinds of cars?

Q. No, they were all lumped. We have shown that the passenger equipment was lumped, just like the freight was lumped. The proposition is the same but it happened in asking you the question I illustrated with the freight equipment.

A. Your question is, having divided it between the states on the car mile basis, ought not the car mile basis be used in determining

it as between the different kinds of coaches?

Q. That is the proposition on the passenger side; and between local and through on the freight side of it.

A. I would say that the latter assumption is not correct.

Q. In other words, you do not agree with Mr. Rosing

4516 on that subject?

A. I do not know, really, what Mr. Rosing's position was. But I do say it is not proper to use the car mileage basis to arrive at the cost of repairs to coaches, express and mail cars.

Q. Do you know Mr. Frank Ward, the General Manager of the

Burlington Railroad?

A. Yes, sir.

Q. Do you regard him as a competent railroad operating man?

A. Yes, sir.

Q. He is a man of about your age and your experience, I take it, is he not?

A. I should say just about.

Q. I want to read you what Mr. Ward said on this subject.

"Q. Suppose you had a road that ran in two states and your cost of equipment was divided between those two states on the basis of the car mile, what would you say as to that—or say six or seven states. No matter how many states your system runs into. How many states does the Burlington System run into?

A. I think it is 12.

Q. If you had a rate case in one of those twelve states would you divide your cost of equipment between that twelfth state with the other eleven states on the basis of the car mile?

A. I don't think I would.

If I were undertaking to determine what it costs me to do business in that state I would have to make a careful local examination of what the conditions were; and if they justified apportioning more

than a pro rate proportion of the expense to that state, I would

4517 so apportion it.

Q. That would be comparing the condition in that state with the condition in the other eleven states?

A. Yes, sir.

Q. It might be that to one state that would be unfair, that is, too little, and very much too much for another state?

A. It might be.

Q. Owing to the conditions of the business?
A. Yes, sir.

That was one point and he was examined by Colonel Moore about that. I will give you this testimony in full on that, so you can see

He was further asked by Colonel Moore as follows:

"Q. One of the grounds upon which you predicate your objection to the division of expenses on a car mile basis, within the state, between the different classes of cars, is the different conditions?

A. You are speaking of passenger service? Q. Yes. The different conditions which The different conditions which exist in regard to the cars themselves and the difference in the expense of maintaining the different classes of cars.

A. Yes, sir.
Q. In speaking of the division of cost of car equipment between the states, on a system which covers more than one state, you also stated that would not be a desirable way to divide it; but there is one

thing to which I wish to call attention:

We will take the case in hand: The Iron Mountain operates in Arkansas, in Missouri and Oklahoma; there are three states in which it operates; in each one of those states there are through and there are local trains. The probabilities are that the general conditions which would vary as between the cars used in

the state locally, would as between those three states constituting a part of this system, be generally about the same. That is to say, they run local trains in Missouri, and they do in Arkansas, and they do in Oklahoma; and probably the same variations exist in each one of those states. I think that would naturally

be the case.

Isn't that difference of condition such as would preclude a division between the different kinds of cars within the state, isn't it decreased very largely when you come to divide the cost on a system running in different states, growing out of the fact that the general conditions, etc., would be about the same in the different statesyou have my idea?

A. Yes, I think so. I think I agree with you fully on the prop-

osition."

"Judge HILL:

Q. What is the proposition you are agreeing to, Mr. Ward?

A. My understanding is, that on a system of railroad which operates in a number of states, in those states there are varying conditions, such as through trains and local trains; and different costs of handling business on those through and on those local trains; and that in those different states those conditions are relatively about the same. And for a system undertaking to determine the cost of maintaining its equipment (as between the state-) it would be fair

to make the assumption that as between one state and another the conditions would be about alike. Is that the proposition?

Col. Moore: That is the proposition I asked you about.

A. That is the way I understand it.

Judge HILL:

Q. Why would that justify it on a car mileage division between

states any more than between through and local trains?

A. It would be simply a comparison of one state with another, for the purpose of maintaining the company's own records. is the general proposition.

Q. You mean for the purposes of comparison of operation in one state and operation in another state, as to the question of efficiency

in the management of the road: isn't that it?

4519 A. Yes, sir, and a little more than that. For instance, on the Burlington road if we were going to undertake to determine whether it costs more to handle passengers in Iowa than in Nebraska, the conditions as to through trains and local trains, branch line trains and main line trains, would average

up one state with the other pretty well; so it might be safe to say it costs no more and no less to handle passengers in Iowa than in

Q. That would depend upon whether the conditions in Iowa and Nebraska were the same, would it not, Mr. Ward?

A. Yes, sir.

Q. So your whole proposition would resolve itself into the question of whether the conditions in one state fairly represent conditions in all the states into which the system runs?

A. Yes, sir, and also upon the idea that as between states in the same general territory those conditions are approximately the same.

Q. Do you know in how many states the Missouri Pacific System runs?

A. I know about where the system runs. I know generally.
Q. It runs through ten, eleven or twelve states? Isn't that right, Mr. Johnson?

Mr. Johnson: It runs in nine states.

Judge HILL:

Q. Wouldn't you say that the conditions in those nine states are similar, so you could use the car mile as a basis to find out the proper expense in any one of those given states?

A. No, sir, not in all. There is a good deal of difference."

Now, I have given you fully Mr. Ward's views about that, so you would have the benefit of the entire text of it.

Mr. MOORE: Read on further there, Judge Hill. Continue from what you have read to the bottom of that page.

Judge Hill: Very well, I will do so.

4520 "By Col. MOORE:

Q. Any division as between states would be diminished when you

come to divide between states, on account of that greater similarity

in conditions, that you spoke of?

A. Yes, sir, there would be a closer similarity between state and state, probably, than between local and through business in the limits of one state."

A. My thought is expressed in that last answer there.

Q. You would say as between nine states you would agree with Mr. Ward that it would not do to separate it between nine states as fairly representative but that if that was done it would be less objectionable than separating it between local and through in the one state: that is the way I understood Mr. Ward.

A. That would be my view, yes.

Previous question read to the witness.

A. I want to explain that answer. The conditions are shown to be here that these expenses were all lumped or pooled and in being required to divide that as between states, the car mile basis has been used.

My judgment is that the car mile basis in a case of this kind, while it presents objection (as do all arbitrary sub-divisions) it does not present them in the same degree or to any such degree as the further attempt to divide the expenses attributable to any one state for car repairs between through and local on a car mileage basis, because there now enters into the equation a distinction as between

short and the long haul.

Q. This expense that you have heretofore in your testimony pointed out as being burdens to the bulk of trains, the short haul business, the extra terminal switching of local trains, all of those expenses have gone into and been amalgamated with less expensive repairs to cars on through trains; and yet you think after that has been done you can separate it between nine states with a fair degree of accuracy? A. Between nine states? Q. Yes.

A. I think with a reasonable degree of accuracy.

Q. What do you mean by that?

A. I mean by that it is more reasonable than could be accomplished by any other method with which I am familiar.

Q. You do not claim when it comes to using that factor to prove mathematically the fact, that it would be accurate, do you?

A. No, sir.

Q. In fact, you know it would not, do you not?

A. I know that. My only position throughout that has been that it is the most equitable and accurate method that I know.

Q. On page 714 I notice that Mr. Moore put this question to

"Q. In that connection, before you proceed, perhaps it is as well I should call your attention to the fact that in a later exhibit filed by the state, after this one, they have excluded trans-state tons from this division, and the division now rests upon intrastate and interstate, excluding trans-state tons."

4522 Now, I want to call your attention to the evidence in this case wherein this supplemental exhibit was filed:

"Q. Mr. Wharton, Mr. Moore questioned you as he did other witnesses, as to the justice of charging the trans-state freight with terminal expense:

You have given your reasons why you thought it was right, I will not go into that again, but I will ask you if you made a calculation showing the difference in cost if you would charge it as his questions indicated it should be, that is, not to allow any station handling for trans-state business.

A. Yes, sir."

Then this question was asked about the handling of the trans-

state cars:

"Then the question was asked about the terminal handling of trans-state cars: have you made an exhibit showing the difference it would be if you would conceive the point and reduce that 25%?"

A. If we would conceive the point and reduce it 25%.

Q. Yes.
A. Why would he do that?

Q. I read this testimony just to show you the fact as to how Mr. Wharton put in these exhibits; that if the contentions made by the railroads were correct, it would make no difference in the ultimate decision in this case.

Were you aware that that was the ground upon which he put in

these exhibits?

A. No, sir. I have not any idea what were the origin of these exhibits.

4523 Q. Was that quite a fair criticism for you to assume that it was an abandonment of his position?

A. No, sir, my answer was responsive to Judge Moore's question. Q. I know that is true, but is it not rather unfairly criticising them for doing something which they have not done?

A. That is not impossible. But any criticism I made was in

response to the question put to me.

Q. I concede that. But with the question and answer I have submitted to you presenting the matter, is that not rather an unfair criticism in view of the reasons I have read to you as to why the exhibit was put in?

What do you say to that, Mr. Gray?

Mr. Moore: I do not recall or understand that I ever made any suggestion to the state's accountants as to the basis upon which divisions or allowances should any of them be made. Nor do I recall that the question ever arose between any accountant and myself.

The inclusion of the trans-state freight is one of the objections indicated by my cross-examination, and as to the reduction of 25% of the cars in through trains in connection with the yard and terminal expenses, I do not think that has originated with me. I never

thought of it until it appeared in this case.

A. My answer is, that regardless of where the suggestion origi-

nated, it has not added anything to the soundness of that deduction to meet an objection, by entirely eliminating a large portion of the traffic which undoubtedly should bear a fair proportion of the expense.

Mr. HILL:

Q. I want to call your attention to the testimony in this case in this connection.

It was testified to by many of the witnesses for the railroads, that cotton had three handlings in Arkansas. You, of course, are familiar with the way cotton is handled, and that cotton is all interstate traffic.

It was testified that a very large proportion of the grain traffic, which is one of the largest commodities handled in Arkansas, has three handlings in the state.

It was also testified that a great deal of the lumber that took the rough material rate and was shipped out of the state, had three terminal handlings in the state.

It was also in the testimony that the business from Memphis was treated in these exhibits as Arkansas business and that all of the business from Memphis which in these exhibits would be interstate business had two terminal handlings, one in Memphis, with which Arkansas is charged the same as if it were handled in the state.

There is also evidence that on account of the way tracks run into Fort Smith all the Little Rock business in and out of Fort Smith is treated as interstate and has two terminal handlings, in the state.

It is also in evidence that a good deal of the trans-state business was broken up and delayed two or three days in the state.

4525 In view of all this evidence the accountants for the state thought it was fair to charge interstate with one handling and intra state with two handlings. And that is the basis upon which that calculation was made.

In criticising this exhibit did you take into consideration these factors that made unusually numerous handlings for interstate business into consideration?

A. Yes, sir. My experience being that the class of traffic which requires additional handling is usually provided for at a higher rate, which compensates for such work.

I also took into consideration the conditions which you mention, say at Fort Smith, in regard to being so situated that practically everythin gis interstate. That is not an uncommon occurrence.

Q. Mr. Gray, I believe you are answering a different point than the one I am asking about.

I am referring to this station handling and as I understood your answer it was referring to the broad proposition of extra expense. I am referring now just to these expenses of handling at stations being divided on the basis of charging one handling to interstate and two handlings to intrastate.

My question is, if in view of the facts I have detailed to you and

which are in evidence, would not that remove in part at least, the criticism you made of that division of station expenses?

A. No, sir. Whatever unusual element the accountant may have used in including or excluding, does not affect the criticism I made in this matter of the method of dividing station expenses, because they may have been more fair to the state contention in including the Memphis tons in the state tons. It might have been a class of traffic that had a longer average haul than the state traffic ordinarily had. Or, on the other hand, they might not.

The difficulty about all these things is, in the absence of specific information it is impossible to testify on it. But I believe that none of the criticisms I made of this method of dividing station expenses are changed either one way or the other by any of the

facts you have stated.

Q. Mr. Doddridge testified at page 96:

"I will ask you if you have given further study and thought to the terminal expense in the freight traffic as well as the passenger traffic?

A. Yes, sir. I have come to the conclusion that the proper method of ascertaining the correct terminal expense as to the freight would be substantially the same as that of the passenger.

Q. That is your judgment as to the best and fairest way of apportioning the terminal expense in freight traffics; that is, it would be substituting merely a ton for a passenger, in making your estimates?

A. No, it does not substitute a ton for a passenger."

A little earlier at page 91 he testified as follows:

"Q. What method have you got, that got at that terminal ex-

pense, if you cannot take this method?

A. I find among my memorandums a method that we designed for that purpose, or formula. I did not give it in my reasons, because the information necessary, upon which to predicate it, is absent, but I will read the example; it is self-explanatory:

Take the St. Louis Southwestern Railroad, for the year ending June 30, 1908; they carry 928,313 state passengers; double this number to compensate for two station handlings. The number then indicates 92% of the total passengers handled."

And he works that out in detail, and then he takes the position that with other passengers you would double the state charge, one for interstate; and the same thing for freight, by substituting the ton for the passenger: what do you think of that?

A. It does not appeal to me.

Q. You see that the state's accountants have rather followed Mr.

Doddridge in that, do you not?

A. I think they have started with Mr. Doddridge, but whether they have stayed with him or not—I think the value of the opinion of any expert would be his entire opinion and not as you follow

him on one item. Because he has made up his mind on each item in its relation to the other.

In other words, you cannot depart from his opinion on A, B and

C and take it on D, and then leave him again on E and F.

Q. Suppose they are separate propositions; one is sound and the other not sound: take for example some of your statements here and some of Mr. Doddridge. If they are separate propositions and not dependent one upon the other, and if it were found he was sound on this proposition and you were sound on that proposition, if they were not interdependent propositions, should not you take those bases that are sound?

A. I don't think that could be done. It may be.

Q. Certainly it could not be done if one were dependent 4528 upon the other. I agree with you upon that. But assume

they are not?

A. I do not believe it is possible to use varying elements in determining a theory for this purpose. The theory throughout has got to be consistent with itself, and you either go through with it or disagree with and adopt another theory which you can apply to

the whole conclusion.

4529 Q. Mr. Gray, I believe when we left off you were stating that in your opinion it was not proper to take different factors with which to divide the various classes of expenses: that such might work out correctly, but in your opinion it would not:

I believe that was about the substance of your statement, was

it not?

A. Yes, sir.

Q. It seems that that is the point on which you and the witnesses

on behalf of the state have differed chiefly.

I will state that it is in evidence here from a good many witnesses introduced by the state, that that is a more accurate method of doing so-to take the factor which in the best judgment obtainable most nearly approximates a given quantity that is sought to be divided, and in that way you can more nearly approximate the actual conditions than you can by adopting a common factor:

Assuming that to be the position of the state, then they are not subject to criticism for swapping bases, if in their judgment when they are doing so, they are endeavoring in each instance to get a

basis more clearly applicable to the particular matter?

A. The purport of that question, Judge Hill, is as to whether I believe the state in endeavoring to be fair, is fair.

4530 not that?

Q. No, that is not the purport of it. The purport of that, as I gather it, is the main difference in your views on this subject and the views of some state witnesses that have taken the position that you can more nearly approximate the actual condition by taking in each case the factor that most nearly represents it, and you disagree with that position?

A. Yes, sir.

Q. And I say, that notwithstanding your disagreement and your difference of opinion with them on that subject, they are not open to the charge of inconsistency when they change from one basis to another, if they are doing so in an effort to get nearer the proper factor for that particular basis?

A. I have never used the term "inconsistency" as applicable to the State's witnesses or to the State's experts who devised this theory.

I have used it with respect only to the theory itself.

Q. I understand that. But then there would not be any inconsistency in the theory itself, from their viewpoint, if they changed from one basis—in one instance, from car miles to tons handled, if the tons handled was nearer an approximation than a car mile, would there?

A. As between the car miles and the ton miles?

Q. I say, tons handled.

A. The only distinction is that one is worse than the other. I don't believe there is any element of expense there by 4531 which, taking the physical characteristics alone, it can be subdivided, at the same time taking care of the costs, equitably, as between all earnings.

Q. You still do not catch the idea.

A. I don't mean to side-step.

Q. I understand that. You have used very frequently the statement that this or that is "inconsistent:" I understand you mean

by that inconsistent with itself.

Now, if they are right—that they should change a basis as they change each particular item to get the factor that is more nearly an approximation of the actual results of that particular factor, it is not inconsistent for them to adopt it, although you may disagree with them as to the factor used?

A. It is not an inconsistency for them to do it, but that does not

change my view.

Q. I understand. I am not asking you to change your view about it, but I am just asking you if it is not proper for them, having those views, to change those bases as often as the varying conditions

would require them to do it?

A. I don't believe I do understand just what it is that you want me to cover in that answer: whether they are consistent in applying these various bases because they believe that they can be applied?

Q. That is my question.

A. Then I would say they are not inconsistent.

4532 Q. You differ with them, as I understand it, as to the proper application as to these bases, and you made your views on that subject very clear, but I want the viewpoint from the other standpoint.

Col. Moore: May I ask a question?

Judge HILL: Certainly.

Col. MOORE:

Q. What I understand you to mean is this: you regard the change of factors, in your view, as an inconsistency in the exhibits, but

you would not say that the party who made the exhibits was conscious of acting inconsistently in making that change of factor-

A. That is the way in which I endeavored to state that proposition.

Col. MOORE: That is what I thought.

Judge HILL:

Q. One of the matters that you referred to in that connection was "Traffic expenses:" you pointed out an inconsistency in dividing that on a gross earning basis: I want to state to you the substance

of the testimony in regard to that:

I think every witness for the state (certainly those who were employed as experts) testified they did not think the revenue was the proper factor to divide traffic expenses, but that they knew of no physical factor like car mile or train mile, or any of these otherseven the ton mile—that was proper, and in the absence of having a factor which they could prove, they merely accepted the railroad

division on that subject. In the absence of anything else 4533 and to avoid discussion on that subject, they just accepted that as a division, and it was also shown here by some of their exhibits that if they had taken the ton mile or car mile it

would work out more favorably to the state.

So in view of that fact, they are not subject to criticism for merely accepting the railroad's division on that point, with that explana-

tion, are they?

Col. Moore: It seems to me that is not a matter for the witness to determine. That is a matter to be determined by the court. That is just Mr. Gray's opinion as to the good or bad faith of these witnesses.

Judge Hill: Oh, no. He was criticising that, I assume, without the knowledge of their explanations as to why they did so.

Col. Moore: Mr. Wharton said some of these factors they did

not use as proper ones-

Judge Hill: That is one of them. I am illustrating that very point; that he stated about the traffic expenses that he merely accepted the railroad's division on that.

A. I would say that would perhaps modify any view I might have entertained as to the inconsistency of the one who planned and prepared it, but not with regard to the inconsistency of the proposition itself.

Q. I understand that. But when matters are prepared in that way it puts a different face on them than the way they were

put to you in your direct examination, does it not?

A. I don't believe I conceive an opinion of inconsistency on the part of the people who prepared this. I only approach it in criticism from the standpoint of one who has dealt with these things practically every day for years.

Q. Speaking of that item of "traffic expenses" while we are upon it, is that a proper charge, to any considerable extent, against the

intrastate traffic?

A. From my viewpoint I want to say it is difficult to determine in traffic expenses what part is really attributable to competitive conditions and what part is merely attributable, and a benefit to all the public alike, to the extent of having conveniently located traffic offices.

The element of stable rates has largely eliminated competition, and I believe under those circumstances especially as these traffic expenses include all of the general freight office and their tariff issues, that the earnings basis is not unfair.

Q. I believe you said that you do think that it would be some considerable portion of some proper basis, that should be ascribed

to intrastate?

A. I think the state ought to stand an equitable proportion of this traffic expense.

Q. That was the only point that I was seeking to bring out.

I want to call your attention to the testimony of Mr. Ward

4535 on that subject (page 686), where he says:

"It seems to me the point is a very small one. I would not personally think very much of the expense should be charged to the intrastate business."

You would differ with him on that, would you not?

A. Yes; my theory is that the state should stand an equitable pro-

portion of that expense.

Q. On this question of starting and stopping and those other physical questions that you were asked about yesterday: are you familiar with this book of Mr. Wellington's?

A. No, I am not.

Q. It is in evidence here that it is used as a text book in an engineering school and that he was accepted as a standard authority.

It is true that this table to which reference has been made, has been carried forward from the earlier edition and the edition from which it was copied in this case was 1908, containing this table, and the table was based on the results of tests made on the Pennsylvania Railroad, so the book says, and that is all in evidence.

Subsequently there was a test made—or rather a compilation made-from working conditions extending over a series of three years, I think it is, on the Union Pacific, by Mr. Berry (then chief engineer) and he gave the result of those examinations in 1904 in which he disagreed only one per cent with Mr. Wellington, using Wellington's classifications but putting different percentages as he

found it worked out on the Union Pacific:

In view of that would you not consider (whether you 4536 agreed with him or not) that those were good authorities to

act upon?

Col. Moore: I disagree with counsel as to what Mr. Berry did. I don't think the exhibit made here of Mr. Berry's formula of division in the report referred to, indicates that he did more than to use a formula in the Wellington book, without any indication as to what his own views may have been. I called attention to that at the time the exhibit was made. It is not quite fresh in my mind now and I will not undertake to state it more closely.

Judge Hill: I may be mistaken, but I am asking him from that

viewpoint. It is all in the record.

A. I would not undertake to pass on either test unless I knew how it was made; what methods were used in arriving, particularly, at the damage done in stopping and starting at way stations. Candidly, I would not give much consideration to this matter. thing that would prompt me to do that would be the regard I have for Mr. Berry.

Q. You know Mr. Berry?

A. I know him intimately, but if Mr. Berry has stated and it is in evidence how he arrived at these figures, and there were no arbitrary assumptions, they would have a good deal of weight. But if

Mr. Berry agrees with Mr. Wellington in the proportion that is stated here as being Mr. Wellington's deduction, I believe 4537

that they are both manifestly wrong.

Q. If it is in evidence that Mr. Berry used Mr. Wellington's classifications, but that he worked up the percentages (among others, on this starting and stopping proposition) from actual investigation for a series of years, on the Union Pacific road, if that is a fact you will give great weight to it?

A. If that is a fact and it was a practical test over a series of years on the Union Pacific road, subscribed to by Mr. Berry, it would

have a great deal of weight.

Q. That is the point I want to make. Whether Mr. Moore or I am right in our construction of Mr. Berry's statement, is a matter for the court.

Mr. Rosing testified on that subject: he would be in a position to

testify very intelligently on it, would he not?

A. This is on the question of the relative cost of stopping and starting and damage done at terminals?

Q. Yes. A. I don't know whether Mr. Rosing's experience has been such that he-

Q. His observation would be in the shops; he would not know how it occurred on the road: is that your point?

A. I don't know what Mr. Rosing's experience has been.

Q. He gives it here and as I recall it it has been in the mechanical department in the shops, all the time. I am not certain, but that is my recollection: is that not correct?

4538 Col. Moore: I think he said he occupied several positions.

Judge Hill: He says here he has been employed in all branches of the machinery department.

A. A man could be that and be almost entirely without road experience, so I would not for a moment discredit anything he says

as being based upon his experience.

Q. I understand that. It is just a question of whether he has formed a correct opinion based on his experience. I myself am not questioning the absolute honesty and sincerity of his testimony, but doctors differ, you know.

What was the proportion you put on that yesterday?

A. I believe that of the damage which results in repairs, not less than sixty per cent of it has its origin in those two causes.

Q. Sixty per cent?

A. Yes, sir.

Q. How did you divide that sixty per cent?

A. Two-thirds of that, or forty per cent, is due to terminal

handling.

Q. Mr. Rosing (as I find it) put 32% on starting and stopping and 28% on terminal: that just about reverses your proportions, does it not?

A. It does not exactly reverse it, but my judgment is that twice the damages done in terminals is done in starting and stopping at stations.

Q. You know Mr. Whitenton, of the Rock Island, I suppose? 4539

A. Yes, sir.

Q. He is a man of large operating experience, is he not? A. Yes, he has had a good deal of experience.

Q. Road experience you mean, not in the shops?

A. No, not at all.

Q. He says (page 493, printed volume 2):

"In fact, I believe that somewhere about 70% of our total damage to equipment is done in the switching of cars."

That is still different, is it not?

A. Is that just terminal switching or switching for-

Q. I will read the entire paragraph. He is summarizing the extra cost proposition and this is in the ninth paragraph of that summary:

"The increased damage to equipment: the increased switching and handling of cars in the local business, in my opinion, has a very decided tendency to damage the equipment. In fact, I believe that somewhere about 70% of our total damage to equipment is done in the switching of cars. That is based simply on my observation and experience in trying to run down the elements that go to make up the cost of repairs to equipment, and which create the conditions which make repairs necessary."

That is his complete statement on that subject.

A. His term "switching" there is inclusive of a good part of the cost that I have used. For instance, my twenty per cent (which covers starting and stopping at stations) is bound to include the switching at stations and does not include switching at terminals.

I think you will find that Mr. Whitenton and I are not so far apart when you include both figures, which practically means

that.

4540 Q. Do you think Mr. Whitenton is including his starting and stopping in this?

A. When he talks about switching and-

Q. I do not see anything to draw that conclusion from.

A. I have included the switching necessarily, at local station my stopping and starting, because my other forty per cent is tern. ad only. I should say that we are not very far off on it. He may be a little bit high and I may be a little bit low.

Q. You are using different terms, though, and it seems to reach

the same result, as you construe his testimony?

A. Not widely different.

Q. This illustrates the point I was making, that doctors do disagree sometimes.

Col. Moore: I do not think they disagree very much here, Judge.

Judge HILL:

Q. Now, Mr. Gray, turn to this passenger proposition: as I understand you, you thought it was a change of bases, or an inconsistency, as you may term it, for the State's accountants not to attempt a division on passenger traffic, between local and through trains: is that correct?

A. I think I commented more on the fact that another method has been used and the local and through trains now eliminated.

Q. What do you consider in railroads in this section of the country, to be the division between the number of trains, local and through, in passenger? About how many through trains are there and about how many local trains, in proportion to each other?

A. That is such a variable—

Q. This is the point I want to get at: as I recall your testimony in the Missouri case you stated it was usually about one-half of each—the proportion of the local and through to each other:

That, roughly speaking, you would consider to be about the

situation, would you not?

A. Yes, as applicable to the lines that I know.

Q. And you gave your testimony on this subject with such a division in mind, did you not?

A. That influenced my thought.

Q. That is what I would have supposed.

Now, I want to call your attention to the actual conditions on the Iron Mountain in that respect. This is an exhibit put in by the railroads, by Mr. McPherson, giving the classification and list of all the passenger trains run on the Iron Mountain system in Arkansas: there are eight through trains and forty-eight local, according to his classification, and of those through trains one of them was a fast mail that goes south from St. Louis to Texarkana and carries one sleeper: that is the only passenger traffic it does:

That is a different situation of affairs from what you would ordinarily have in mind when you consider that problem, is it not? Is not this situation different from what you would expect to

find?

A. It is not different from what our situation was in Missouri at that time. The train mileage of forty-eight and the train mileage of eight would of necessity have to be considered, but we had at that time a fast mail, which is a duplicate of what you have in mind—which runs from St. Louis to Bonita, across the

entire length of the state of Missouri, and does not carry any pas-

sengers.

There were also factors in the Missouri case which have not yet been given to me in this case, and that is, what of this local train mileage was considered necessary by the railroads; what was brought about by any regulation of Federal or interstate authority, and what had been put on by express authority of the state. We had all those conditions in the Missouri case.

Q. In regard to that latter proposition, there is really no testimony in this case bearing on it, but I will call your attention to the physical situation of the Iron Mountain so that you will see there is very little, if any, effect given to that by reason of forced train

runs.

The main line runs through the state from one end to the other and then there is a very large traffic, as you know, between Little Rock and Fort Smith; between Little Rock and the Louisiana line; the White River branch is a through line; and the one over there in eastern Arkansas—the River Level Line, is another through line division; the Memphis train, as you know, has a heavy traffic:

Calling your attention to those things, you will at once see there would be very little, if any, forced trains; no stubs, 4543 curved lines or things of that kind, like we are pretty well

blessed with here in Missouri: is not that a fact?

A. Yes, or in Arkansas either, as far as we are concerned.

Q. Recognizing that situation that I have just outlined on the Iron Mountain, you see that would hardly be the effect of forced runs?

A. Is it admitted for the purposes of this case that there is no-

Q. I said there was no testimony on that, but I am just calling your attention to the physical condition of the Iron Mountain, which I suppose you are more or less familiar with. I suppose you see that if there are any forced trains on these little lines, they are very inconsiderable factors?

A. I can see in this exhibit-

Col. Moore: You assumed a while ago that there were no regulations in Arkansas-I believe you said in evidence-in regard to the running of local trains-

Judge Hill: I don't recall any.

Col. Moore: Mr. Johnson informs me that there are regulations, either by statute or put in force by order of the Commission, which has the effect of the statute because they are authorized to do that, and I want it understood that that is material-

Judge HILL: I don't care anything about that. I just stated in my question that if there were any he would know from the 4544 general situation that they were a comparatively small num-

Col. Moore: I would not want Mr. Gray to make an answer upon a statement which may be incorrect, and you would not, either,

A. I don't know how much of this local mileage is brought about

by an action of the state. That has an effect upon the matter of cost to which I testified in the Missouri case.

Col. MOORE: I imagine it is about the same in both states.

A. There are a number of others which enter into the equation here that were not present in the Missouri case, and which in my opinion, affect the expense of operation of passenger service considerably.

Judge HILL:

Q. I am not asking about the operation—of the expense of it: I was just asking you of the desirability, in view of the way the trains run in Arkansas, of making a division between local and through; whether it would come as near as possible to actual results: that is my question to you.

A. I see no value in dividing it between local and through, as I have seen no value in the freight statistics, and for practically the

same reason.

Q. You do not object to its being divided as between the coaches, etc., instead of being divided between the local and through trains?

A. I would not regard the coach mile basis as being any

4545 better or any worse than the primary method of dividing it between the local and through, except that in criticising the entire theory, I think it is as inconsistent to use the local and through in the passenger, and finally divide that between interstate and intrastate on a passenger mile basis, as it would be to do what is done here.

Q. Is it not considered by good operating railroad men, that a division of passenger traffic, between the coaches, mail and express, on a car mileage basis, is equitable?

A. Not within my acquaintance.

Q. Do you know Mr. Seward R. Knott?

A. No, I never had the pleasure of knowing Mr. Knott personally.

Q. You know him by reputation?

A. Yes, sir.

Q. From your knowledge of him you regard him as a competent railroad operating man, do you not?

A. No, I do not think Mr. Knott ever had any experience as such. Q. Was he not vice-president and general manager of the Louis-

ville & Nashville Railroad?

A. I think he was vice-president, in charge of the traffic of the Louisville & Nashville Railroad. Mr. Knott has never had any operating experience, to my knowledge.

Q. Subsequently he was president, I believe, of the Kansas City

Southern?

A. He was the executive head of the Kansas City Southern.

Q. We have already put in evidence in this case state-4546 ments from Mr. Knott, which I will not take the time to again quote in your testimony: he takes the position that the car mileage basis is a fair one when they divide the passenger traffic between mail and express: what would you say to that? A. I would not accept it at all.

Q. Do you know Mr. S. C. Johnson, of the Cotton Belt?

A. Yes, sir.

Q. He gave testimony before the Postal Commission to the same effect, where a division of the passenger mileage was very much as it was in this case, and testified that that was a most equitable way of reaching that: you could not agree with him, either, could you?

A. On a car mileage basis?

Q. If you wish I can give you in detail just what they said about it, Mr. Gray, but that is the substance of it. It has already been introduced in evidence here.

A. No, I would not feel that that was right.

Q. I believe it is also in evidence that Mr. Peabody, of the Santa Fe, testified that that was a proper way of dividing—I think he was testifying about express; these other gentlemen were testifying about You know Mr. Peabody? mail.

Col. Moore: He did not testify in this case.

Judge HILL: No, but his testimony was quoted in this regard.

A. Yes, I know him quite well.

Q. He is a man of large railroad experience, is he not? 4547 A. I don't know. My only acquaintance with Mr. Peabody has been as a statistical expert.

Q. He has given great study to these accounting propositions, has

he not?

A. I think that is a fair statement, that he has done that.

Q. If I remember correctly, the excerpt from his testimony was taken in the hearing in regard to the express, in which he advocated the car mile division—express and mail, substantially the same proposition as is used here: I understand from your previous answer that you disagree with him?

A. Yes. I don't believe that that is a fair and equitable basis.

Q. You criticised yesterday the use of the statistics on the Cotton Belt for the fuel, using those same percentages that applied on the Iron Mountain:

I want to read you the testimony of Mr. Doddridge on that point, and I will explain further that the accountants in this case have testified that they were unable to get any statistics for the year 1907; when these statistics were put in, not having preserved them-they had no statistics to get that information from.

This question was asked Mr. Doddridge (page 106, volume 2): "Q. Fuel, I presume, is another one of the chief items as you

worked that up in the Cotton Belt case. Would the actual figures you worked up on fuel cost between local and through trains on the Cotton Belt, apply generally on the Iron Moun-4548

A. I presume that those proportions would be applicable in a general sense on the Iron Mountain, or it ought to be.

Q. That is, you mean the relation in the cost between the two classes of trains?

A. They ought to be unless there is some difference in conditions on the Iron Mountain that might change the relations.

Q. Do you know any conditions between those two roads (you have been general manager of both) that would change the relation of the fuel cost between them, as to the proportion consumed on the local as against the through, or the through as against the local?

A. I do not know of any conditions that would change those relations on the main line of the Iron Mountain as compared with the Cotton Belt—the Cotton Belt Railroad is mostly main line. The Iron Mountain main line is a very similar road through Arkansas, as to grades and other things—I guess the Iron Mountain is a little better than the Cotton Belt, some parts of it—and of course the Iron Mountain has other divisions, like your road from Little Rock to Fort Smith, that used to be very different from the Cotton Belt. I guess it has been improved now.

Q. It has all been improved. You must not indicate that anything going out of Fort Smith has not been improved, or we will have a falling out.

A. In a general way the test on the Cotton Belt ought to reflect

the general average conditions."

Q. In view of that testimony of a gentleman who had been general manager of both of the roads, would you not think the state could fairly accept those percentages in trying to get the general conditions, in the absence of being able to get actual figures?

A. I cannot see any inconsistency in the state assuming that, but I can see an inconsistency in an operating officer making 4549 a test upon one road in one month, and assuming that that condition could apply to another railroad, without any knowledge of the business conditions on that line for that month, and

which (while he had previously been general manager) he had not been associated with for over five or six years. Q. But he testified, Mr. Gray, that he made a close study of the

statistics of those two roads before he testified in the Missouri case and in this case.

A. And yet there are no statistics which he could have studied, on the Iron Mountain, which would have given him the relative consumption of the local and through freight.

Q. You disagree with Mr. Doddridge in this statement?

A. I question the statement. While I do not disagree with it,

I don't know whether it is too much or too little.

Q. Under these circumstances, where Mr. Doddridge is put forth as a leading witness for the railroads, and testified he was an adviser of counsel in the case, do you not think the state would be justified in assuming that this was a correct percentage to use?

A. Did the state assume everything else that Mr. Doddridge said

to be true, applicable to the Iron Mountain?

Q. I don't know that any other question was raised that I can answer you.

Col. Moore: He said a good many things applicable to the Iron Mountain that we do not think you will agree with.

4550 Judge Hill: But as to any physical matter like this, I do not recall anything else that he stated that there has been any disagreement with. There may have been, but as far as I can recall right now there were not.

A. Without a knowledge of all of the facts which Mr. Doddrioge may have reported with regard to the two lines, I could not take one deduction and say that it was right for the state to use that to the exclusion of others.

Q. I think I have read you all that relates to this point, Mr. Gray.

If there is anything more, I do not know where it is.

A. I would have to say that I couldn't state with any consistency in that matter, while I might still entertain my respect for doubt of the efficacy of those figures.

Q. But poor, inexperienced Arkansas lawyers would be justified in taking a man of that vast operating experience as knowing what he

was talking about, would they not?

A. I don't know. When these Arkansas lawyers get a man on the stand they twist him into pretty near any distorted shape, before you

get through with him.

Q. Mr. Gray, we have all sorts of doctors in this case: we have Dr. Johnson, statistician of the Iron Mountain, and Dr. Kimbell, of the Cotton Belt, and under this head of "traffic expenses" I see Dr. Johnson uses the gross revenue in dividing between states.

Mr. Kimbell uses the revenue train mileage as the factor:

4551 with which one of those doctors would you agree?

A. I would agree with Dr. Johnson. Q. You would take the train mileage?

A. No, sir.

Q. The revenue train mileage?

A. No; I understood you to say he took the gross earnings.

A. Yes, Dr. Johnson takes the gross earnings; that is right, and Dr. Kimbell takes the revenue train mileage.

A. I will agree with Dr. Johnson in that particular.

Q. In "Station expenses" Mr. Johnson makes a division between freight and passenger, of combined station expense, on an approximately revenue basis: that is the way it is stated, I believe:

Is not that switching from one basis to another when he takes the "traffic expenses" on gross revenue and then takes "station expenses"

on approximately revenue basis?

A. I would have to have the whole proposition before I can answer on that. I never knew any basis by which you divided "station expenses" alone. I don't know of any basis upon which you divide station expenses alone.

Q. Here is his exhibit:

"Station service includes the wages of station employés, station supplies and expenses and telegraph and telephone expense. This expense is practically all local and is charged to the state in which the expense is incurred. Wages of employés at and expenses of stations handling both freight and passenger business are divided 75% freight and 25% passenger, which is approximately the proportion of revenue for each class of business."

4552 What do you think of that?

A. From my observation and judgment, I would say that to divide those unlocated station expenses between freight and passenger on a basis of seventy-five and twenty-five, is about in line with equity, even if it did not closely approximate the earnings.

Q. How are you going to reconcile that basis with dividing "main-

tenance of way and structures"-

Col. Moore: That is gross earnings equalized?

A. It happens to be.

Q. And the per cents of seventy-five and twenty-five are not accidental, but are used for the purpose of equalizing—as being the proper basis of equalizing?

Judge HILL:

Q. How are you going to reconcile that with dividing "maintenance of way and structures"—

Col. Moore: Will you let me have this question repeated?

Judge HILL: Certainly.

(Last question of Col. Moore read.)

Mr. Johnson: It is a monthly occurrence; it has to be done every month. The percentage is 26 one month, 24 or 25, and in order to make a uniform percentage we accepted the average, which was 25 and 75.

Judge Hill: I am not objecting to that. I am calling attention to

the different basis-

Col. Moore: I object to comments being made on it without proper information.

4553 A. I understand that is not a different basis from what he has used; that he has located in the state, to begin with, all the expenses that are locatable.

Judge HILL:

Q. And then taken this 25 and 75 as approximately the revenue, I presume?

Col. MOORE: No-

The WITNESS: He says it is the revenue.

Judge Hill: It is an average of the revenue, I presume, or something of that kind. I do not care anything about that. There is a different basis injected into this.

Col. Moore: If you want Mr. Gray to pass on the method adopted in that exhibit, I would rather you would either read it to him or let

him read it than to state your construction of it.

Judge Hill: Very well. You take this copy, Mr. Gray, and I will keep the other.

Q. Now, take the first page, Mr. Gray: you see that is divided between freight and passenger on yard engine mileage: is not that a fact?

A. (After examining paper.) Yes, that is true.

Q. What do you think of that basis? That is a swapping of bases, too, is it not? Do you understand that paper?

1967

A. No, not this last part.

Q. It follows right there (indicating on exhibit) "this is the proportion of yard engine mileage in each class of service."

4554 A. I don't understand it.

Q. That is what they say. I am sure if you do not understand it. I do not.

A. I don't understand how they arrive at the proportion of yard engine mileage in each class of service, unless it was supported by the experience of some one. I have never had occasion to divide that,

Q. Suppose it was properly based on an estimate of six miles an

hour: what do you think of this factor to divide that expense?

A. There has to be an arbitrary assumption in that; whether or not that assumption is correct or incorrect I couldn't say. I don't believe any six miles an hour can be divided into freight and passenger without some arbitrary,

Q. Is not this subject to the same criticism that you made of similar divisions in the state's exhibits yesterday-divisions between

local and through?

Q. Yes.

A. No. sir.

Q. Did you not say that the train mileage would have no relation or bearing to it? Was it not six miles an hour? I know you objected to it.

That was in the expense of maintenance of yard locomotives, at the top of page 2, exhibit "K"; what was your criticism of that?

A. That criticism was of the fifty per cent. 4555

not know whether it was enough or too much. Q. Did you not criticise the use of the yard mileage as six

miles an hour?

A. I don't believe I criticised the six miles an hour. know that that is an unfair allowance. I would not be still using it if I did think so.

Q. You were not critical of the six miles an hour?

A. I did not criticise the six miles an hour. I think I said I

assumed that this was based on six miles an hour?

Q. Is not the principle of adding these arbitraries equally open to the criticism you made of the other, if that mileage was figured at six miles an hour?

A. I don't understand that this is on six miles an hour.

Q. You do not understand that it is?

A. It says the total charge is divided on 95 and 5: I have not been told how that 95 and 5 is arrived at. I have never seen any figures that would enable me to-

Q. Assume, Mr. Gray, whether it is in evidence or not, that this has been figured on that six miles an hour basis: would that be actual?

A. Oh, no.

Q. Then this division would be subject to the criticism of using an assumed proportion, would it not?

A. The difficulty about my criticising this division is that I don't know how it is arrived at.

Q. I just put it to you hypothetically—that if it were 4556 based upon the six miles, that it would have the objection that the other had, except that it has to be divided, and the logic used in arriving at the arbitrary would be the determining factor in passing upon its reasonableness?

JUDGE HILL: I think the Interstate Commerce Commission gives a direction for something of that kind authorizing the use of six miles an hour for that purpose. I am not criticising the exhibit or the item itself, but I am calling Mr. Gray's attention to the fact that it has assumptions and arbitraries in it as well as some others.

Q. Is not that true, Mr. Gray?

A. Yes, sir. Q. Now take the "Mixed train service": have you that before you?

A. Yes, sir.

Q. You will see that is divided 75% freight and 25% passenger: is not that another arbitrary assumption?

A. I cannot agree that that is an arbitrary without knowing how

it is arrived at.

Q. Suppose that is made under the same rule of the Interstate Commerce Commission that might justify that; still it would not be actual results that they have there?

A. I don't think it is fair to ask me to say how that is arrived at. I would say that if that is an arbitrary assumption without any basis in fact, that it has to stand in that category.

4557 Q. Would not that ignore the expense of carrying passen gers in cabooses of local trains?

A. Ignore the expense?

Q. Yes.
A. Yes, sir. I would like to see the mixed train mileage as contrasted with the total train mileage, because I believe that that item is immaterial, however divided, as affecting the whole.

Q. I believe you made a point yesterday on one of these sub-divisions of the state, that it had ignored or taken no account of carrying

passengers in cabooses of local freight trains?

A. No, the criticism I made yesterday was the use of passenger miles in dividing the coach expenses which included passenger miles in Pullman and caboose cars, without any information as to the amount in each.

In other words, the criticism I had of that was that that divisor

was not composed of common units.

Q. What do you say of this?

A. I don't know how this is arrived at.

Q. This ignores all expense of carrying passengers in local freight trains—this division that we are now considering.

Col. Moore: This has nothing to do with passengers carried in local freight trains, had it? It is dividing mixed trains between freight and passenger.

4558 A. This ignores because it applies—there is nothing in this formula that puts on the passenger side of the house the expense of handling the passenger on the local freight train.

Judge HILL:

Q. Mr. Gray, turn to "General Expenses":

You see the primary division betwen states is on a gross revenue basis, and a subdivision between freight and passenger inside the

the state, on a train mile basis: what do you think of that?

A. I think that that is fair, for the reason that the greatest proportion of the general expenses is in connection with the accounting, auditing and conserving of the revenue, and for the reason which I have stated before in the examination, I believe that the basis between freight and passenger being placed upon train miles, which is a complete entity in each case, is the most equitable.

Q. Is not that a swapping of bases?

A. No. Here we have used train miles for this right through this theory.

Q. I do not think you have for general expenses, anywhere else,

used train miles on a division between freight and passenger.

A. They used the earnings basis here for dividing between states, and the train mile for dividing between freight and passenger. That is true throughout the other part of this formula.

Q. Mr. Kimbell, of the Cotton Belt, used the train mile all through, both between states and trains: which are you going 4559

to agree with, Dr. Johnson or Dr. Kimbell?

A. I incline to the earnings basis as between states, and the train basis as between passenger and freight, for the reasons which I have given.

Q. Then you would disapprove of the use of the train mile all

the way through in that, would you?

A. No, I have approved of it as between freight and passenger. Q. I mean, when divided between states on a train mile you disapprove of that, do you? You see, one uses the gross earnings and the other the train mile: I want to get your judgment as to which of these gentlemen have the better theory.

A. Let me have just the exact item-

(Mr. Kimbell shows same to witness.)

Q. Which do you now agree with?

A. Having been approached by Mr. Kimbell, I still agree with Mr. Johnson.

Q. Now take "Hire of Equipment": will you read that over, Mr. Gray?

A. Yes, sir.

Q. This seems to be a net figure in the difference between the amounts paid by the Iron Mountain for the use of cars of other lines, and the amounts received by it for the use of its cars by other lines:

It seems the railroads have used the same division between states, that the state used between local and through trains, the car mile:

do you think that is right?

4560 A. I think that a division of that kind between states is equitable and I don't think that a division of that between local and through trains is equitable, because it does not take into

consideration the elements of difference brought about by the short and long haul.

Q. Aside from being equitable, is that an accurate division of that

item?

A. I think it is, for the reason that in common practice there is no distinction whatever between a foreign and a local car mile.

Q. What relation would car mileage on the Iron Mountain tracks, in Arkansas, have with the car mileage of cars off that line?

How do you understand that question, Mr. Grav? Maybe you

understand it a different way from the way I do.

A. "This account includes the amount of rentals, mileage or per diem paid for the use of equipment belonging to other companies, less the amount received from other companies for the use of our equipment."

In other words, that is a net credit or debit.

This item is divided between states upon a basis of the total mile-

age of each class of equipment in each state.

Q. You have taken the car mile running in Arkansas to divide that equipment expense running through the state have you not?

A. Yes, sir.

Q. That is what I thought I asked you a while ago.

A. Yes, that is right, and it bears that through relation because of the fact that in common railroad practice there is very little distinction made between ownership, particularly at the time of business stress.

That debit created by such a condition is, in my opinion, correctly chargeable to the several states on the basis that they have

profited, and that profit is represented in the car miles.

Q. You criticised yesterday the use of the month of October for the purpose of getting the casualties and damages occurring during that period, and stated that generally there was quite a lapse of time between the time when the damage was occasioned and the time it was actually paid: that would be true of the six months' period, too, would it not?

A. Always in less proportion on account of the inclusion of a larger period. It presents less elements of objection because of the

inclusion of a larger period.

Q. But it certainly would not represent actual conditions.

A. It would not represent actual conditions.

Q. You testified yesterday that much of the trans-state business was cheaper because there was very little handling of that in the state and that it would not be charged up with station expense: was not that about the substance of it?

A. Yes, sir.

Q. It is in evidence in this case that in the month of October, 1907, 1454 trans-state cars were examined, by taking fifteen days' billing—just as they came.

4562 Those 1454 cars took an average of 6.03 days to get through the state, as against a schedule of 1.1 days; would not such a movement as that represent some station expenses in Arkansas, as well as terminal expenses?

A. That would depend upon where they rested during this interim. If they were stowed away on some abandoned mill track and stood out there until you could get to them and use them, they are not representing any material expense in station service-Q. These were not empties.

A. I mean loaded. Take a period of congestion and cars quite

often take the direction of least resistance.

Q. Would it be your judgment that 1454 cars, taking that length of time going through the state, that all of them would be stowed

away some where, on some track?

A. No. But I would not feel qualified to say whether or not that would make material difference in proportion.

counting is concerned it would make no difference.

Q. I am speaking of the expense of handling the business.

A. The station expense is what you are talking about. Q. That would be using the tracks and the facilities in the state considerably, would it not?

A. What is the distance that these 1454 cars passed-

Q. They ran from 221 to 298 miles in the state. They were all trans-state.

A. What is that average per day; did you figure that out? 4563 Q. The average schedule movement was 1.1 days. actual movement was 6.03.

A. But what is that average miles, per car per day? Q. Mr. Hamilton says it is something like fifty miles.

A. I would say that in a period of congestion that is a fair move-

Q. Take a movement in March, 1907: there were 1560 cars worked up: they took an average of 4.1 days to get through the state and the schedule time on those cars was 9/10 of one day, or practi-

A. I don't think it is fair to contrast actual with schedule. I don't believe that out of 1500 cars any railroad hopes to make schedule. You haven't told me whether this schedule was a fast freight

schedule or that these cars are fast freight cars.

Q. There was a schedule applicable to these cars.

A. I did not know there was such a thing.

Q. It is the schedule which is called "ordinary schedule" as distinguished from red ball.

A. Ordinary schedule and 1.1 days for 298 miles?

Q. That is the schedule day on the 1454 cars in October; the other was practically one day schedule and the actual time was four

A. The one day schedule comprised how many miles?

Q. 221 to 298.

A. That is an exceedingly unusual schedule. I cannot believe that any railroad would undertake to do that. 4564

Q. It has been done.

A. I am talking about your schedule; not your perform-I don't believe any railroad has that schedule. I don't ance. believe the Iron Mountain has it.

Q. This was taken from employés' and official time cards.

A. 298 miles in twenty-four hours-

Q. That is the average given.

A. I am talking about the average. I am not picking out one fast train.

And you have taken the lowest schedule as being a possibility, and without placing against that the actual performance?

Q. That is the way I understand it.

A. As I understand your schedule, the car has got to start running just as quickly as it is received and is not given any time after it has stopped, to arrive by your schedule?

Mr. HAMILTON: What we did was to take all the billing shown

there, from and to the territory shown on those sheets.

The WITNESS: Your average, for instance, might have included one car that might have been delayed thirty days for bad order?

Mr. Hamilton: It shows the exact time. There were 100 cars that stayed fourteen days in Arkansas. Of course one of them might have been there fifty. It is an adding together of the time

have been there fifty. It is an adding together of the time cards without any terminal delay, and by the short line routes. We took certain tissue books, without knowing where they were going, to find the cars and trace them by the wheel reports. We did that so as not to call attention to—

The WITNESS: But the time it actually stood in the yard you did

not consider?

Mr. Hamilton: We made no allowance for that.

The WITNESS: And you made no allowance for that in your

schedule?

Mr. Hamilton: No, that was on the theory that they ran them into the yard, cut off a caboose and started another out, as has been testified to.

Judge HILL:

Q. Would not such a movement as that represent some use of the facilities and terminals of the railroad in Arkansas, for trans-state business?

A. It would represent some, but an absolutely indeterminable

amount, as I said.

Q. What about representing terminal use?

A. It would not change my idea as to the relation, because all the freight handled there was being handled under exactly the same conditions and terms, and the officers and employés directly handling it have no opportunity to make any distinction between transstate, intrastate or interstate. They simply know it as freight.

In my opinion, the relative conditions as they obtain between those three classes of freight and as affecting the expense, would not

be changed by this condition, because the men handling them, the men who create the expense, do not know the difference between them.

Q. They handle it indiscriminately?

A. Yes, sir.

Q. And that would be there for handling that length of time above the schedule?

A. Yes, and if it assumed the same proportion of the other freight which would hang up in the same way. I am just stating that as an unfortunate experience.

Q. That would be a matter of assumption on your part?
A. Yes, sir.
Q. Would not that represent the use of facilities, sidetracks, yards, etc.?

A. Yes. But it does not change, in my estimation, the relative conditions which go along with it.

Q. Whether it changes the relative condition or not, it shows——A. Yes, that represents a use of all facilities in the state.

Q. And represents the use of station forces and terminals in the state?

A. Yes, sir.

Q. And you are assuming that the other freight would be running in the same proportion and if it was it would not change the relation?

A. That is it.

4567 Hubert Roth, recalled, testified as follows:

Direct examination.

By Col. MOORE:

Q. Mr. Roth, you have testified heretofore in this case?

Q. I believe you stated on your former examination that you were connected for a number of years with the Accounting Department of the Iron Mountain Railroad?

A. Yes, sir.

Q. Mr. Roth, you are familiar with Exhibit 26 filed on the part of the railroads and with Exhibit I filed on the part of the state, in this case?

A. Yes, sir.

Q. The first exhibit referred to covers all freight taken into the account of the Iron Mountain road for the month of October, 1907:

Have you made any investigation of the local trains that ran during October, 1907, for the purpose of ascertaining whether there was any freight hauled on those trains that was not included in the Auditor's accounts and in the statements contained in Exhibit 26 and Exhibit I?

A. Yes, sir, I made such an investigation.

4568 Q. If you have, please state what that investigation was and what it showed. First, how did you make it and what did you investigate, what trains and so on?

A. We investigated 16 trains in all, 13 of which were on the Arkansas Division; one westbound on the Memphis Division; one northbound on the Valley Division (that is from Monroe to Mc-

Gehee) and one eastbound on the Central Division.

We compared the state detailed sheets with the waybills and made corresponding sheets, in which we inserted the dates of the waybills as an index of the account that that particular freight would have gone into in auditing our accounts.

We also made a notation if it was received at a period subsequent

to the month of October.

We found that all of the freight on those 16 trains, of the transstate freight about 30.5% was not included in our October account and about 15.5% of the interstate was not included in our October account or our Exhibit 26.

Of the state freight, a fraction over 6% was not included

Q. Mr. Roth, as I understand you, those proportions you have mentioned of trans-state, interstate and state freight you found on those sixteen trains, were not included in the Auditor's accounts of freight handled in October or in the statistics on Exhibit 26, and consequently, not in totals of the state's Exhibit I which is based on the railroad's Exhibit 26?

A. That is correct.

4569 Q. You say you investigated, and analyzed I suppose, the results of sixteen trains. I believe there were 46 local trains investigated by the state. Am I correct in that, Mr. Hamilton?

Mr. Hamilton: That depends on what you mean by "trains". If you mean all the trains running under that number, there were 46; if you mean individual trains running that month there would be about 1400.

Mr. ROTH:

A. (continued). As compared with the trains I mentioned, it would be 46.

Q. You investigated about one-third of the local trains for October?

A. Yes, sir, about one-third.

Q. Why did you not extend your investigation over the entire 46?

A. It would have taken too much time. I believe we could not have completed that under a year's work.

Q. So it was impracticable to extend it beyond the trains you did investigate?

A Yes, sir, it was.

Q. Did you have any data from which to investigate the through trains?

A. No, sir, there was nothing in the shape of data which would have enabled us to do that.

Q. Mr. Roth, if the same conditions which developed on the sixteen local trains, you investigated in regard to freight not included in the auditor's accounts, had existed on the through

4570 trains, what would have been the amount of tonnage actually handled in the month of October, omitted from the auditor's accounts and from Exhibit 26?

A. There would have been a difference of about 27 million ton miles.

Q. It would have swelled the tonnage for October about twentyseven million tons?

A. Yes, sir.

Q. Where did you find the percentage of business not included on the trains you investigated was heavier with regard to the division or territory in which the trains operated?

A. We found it was heaviest on the trains nearest the border of the state, and not so heavy with those running central in Ar-

Q. What effect in your judgment, would that have upon the percentage which would have developed if you had been able to analyze the entire forty-six trains?

A. I think if we had been able to analyze the forty-six trains the three percentages I have mentioned would have been considerably

Q. Mr. Roth, I believe the heavy cotton movement begins with October, and that is one of the months in which there is a very heavy shipment of cotton in Arkansas?

A. It begins in October and there is a fairly heavy movement.

in that month.

Q. What effect does that have upon the loading of the local as compared with the through trains in that month?

A. It would necessarily increase the percentage of interstate business, as all cotton is treated as interstate business in our exhibit. It was also so treated in the state Exhibit I.

Q. How is cotton counted in the state's Exhibits in this case: are the tons of cotton handled on the trains doubled up by their method

A. Cotton, owing to its double movement, in all statistics compiled by us, would shaw a double movement on account of the movement into the compress and the movement out.

Of course, that would not apply on ton miles as you would have those individually. But the tonnage necessarily repeats itself.

Q. It doubles itself?

A. Yes, sir. That, of course, is only in so far as cotton goes

into the compress points.

Q. A good deal has been said about the handling of cotton at terminal stations: what proportion of the volume of tonnage handled on the Iron Mountain road consists of cotton?

A. The total cotton movement in the year 1909 was 1.27% of the total tonnage of the Iron Mountain road for that year. In the month of October, 1907, it was 2.58 percent.

Q. That is in the statistics of the company?

A. That is in these statistics.

Q. In those statistics does this double accounting on account of handling at the compress appear? 4572

A. Yes, sir, all cotton that goes into the compress would naturally come out again?

Q. Really, the percentage of cotton handled that way is swelled somewhat as it appears in the statistics of the company?

A. So far as the tonnage is concerned I would say it would be

swelled some 60 or 70 percent.

Q. Do your estimates of 2.27 percent in 1909, and 2.58 percent in 1907, refer to the actual tonnage, the tons handled?

A Yes, sir.

Q. That would be affected by this doubling up at the compress points?

A. Yes, sir, that would be reduced somewhat, if you could elimi-

nate the first movement.

Q. What does Exhibit 26 give as the quantity and number of tons of interstate freight carried in the month of October?

A. 291,110 tons.
Q. That is interstate, not including trans-state?
A. That excludes trans-state freight.

Q. What amount of that in tons or percent, or both ways, is cotton?

A. 7231 tons or about 2.5%

This was cotton that was loaded at Arkansas stations and billed to the compress points, only.

Q. Does not a considerable quantity of cotton in the state of

Arkansas move to the compress points in other states?

In other words, is there any considerable quantity of cot-4573 ton that does not receive that additional handling, which grows out of the additional handling at the compress points?

A. Yes, sir.

Q. State what are the facts on that point?

A. For instance, all cotton shipped from stations north of Newport

would go directly to St. Louis or to Dupo uncompressed.

There is also a movement from various stations in Arkansas south to Houston, Texas, that would go uncompressed, particularly from McCrarv.

There is also a movement in southern Arkansas to Monroe,

Louisiana, which is compressed there for shipment south.

I should say fully 30% of the cotton movement would not be

compressed in Arkansas,

Q. And would not have that extra terminal handling that has been referred to in this case as chargeable to cotton at compress points?

A. Yes, sir.

Q. Is that an estimate or have you any figures on that?

- A. I have no actual figures. It is more or less an estimate so far as this cotton movement is concerned. But I have looked into the matter.
 - Q. You have investigated for the purpose of forming an opinion?

4574 A. Yes, sir.

Q. But you have no statistics on that?

A. No, sir, I have no statistics.

Q. I wish you would state the proportions of grain shipped into Arkansas to the freight movement in that state?

A. The total grain movement over the Iron Mountain in the

month of October, 1907 was 105,646 tons.

The grain milled in Arkansas, of interstate origin, 5513 tons or a fraction over 5% of the total grain movement or about 1.1 per cent of the total interstate tonnage as shown by our exhibit 26, which is 507,350 tons.

Of these 5513 tons, 3037 tons were reshipped to interstate points, This would constitute about 1.4 per cent of the trans-state ton-

nage shown by our Exhibit 26.

The other 2.476 tons were reshipped to Arkansas points and would be less than one per cent of the Arkansas interstate tonnage,

as per our exhibit 26 which is 291,110 tons.

Q. Have you prepared a statement showing a comparison between the percentage of revenue accruing from the handling and hauling of the commodities and the percentage of the total tons one mile made by such commodities?

A. Yes, sir.
Q. I see you have a statement prepared which contains also in narrative, form, deductions you make from the table which constitutes the principal and important part of the statement: 4575 I will ask you to file the entire statement as a part of your testimony?

A. This statement is as follows:

Comparison between the percentage of Total Revenue derived from the handling and hauling of Commodities and the percentage of the Total Tons One Mile made by the same Commodities.

The Comparison is made both on the Missouri Pacific and St. Louis, Iron Mountain & Southern System as a whole, and on the

Intrastate freight traffic in the state of Arkansas.

The object of this comparison is to demonstrate that the Revenue derived from the handling and hauling of all classes of freight traffic bears a very much closer relationship to the cost of handling these Commodities than does the Ton One Mile.

In order to make plain the cost and the relation of Revenue and Ton One Mile, I have graded the various Commodities into six groups, according to character, loading, risk by loss and damage,

handling and incidental cost.

Group No. 1.—Consists entirely of less than carload Merchandise and is of necessity the most expensive class of freight handled by the Railroad Company, as it involves very light loading, consists of many articles that are bulky, fragile or of delicate texture and of considerable value which naturally carries with it a heavy risk from loss and damage, it also involves much handling at stations and the maintenance of a large force of men for this purpose. necessitates a larger clerical force than carload freight as it involves the making out of waybills and bills of lading of about 100 less than carload to one of carload and increases the clerical work in the Auditor's office in the same ratio.

Group No. 2.—Represents carload Commodities, the loading of which is, on the average, light, many of which have the same characteristics as less than carload, making them liable to loss and damage and subject to extra handling. This group consists of carload merchandise, all kinds, and manufactured articles, fruit and vegetables, cotton and live stock.

4577 Group No. 3.—Represents commodities generally carried in light loads but on which the risk from loss and damage is less great and which requires no handling and consists of Hay,

Packing House Products, Oil and Machinery.

Group No. 4.—Represents medium grade commodities, carried in heavy loads on which there is some risk from loss and damage and consists of Grain and Grain products, Cotton Seed and Cotton Seed Products.

Group No. 5.—Represents lower grade commodities, carried in heavy loads with little, if any risk from loss and damage and consist- of Lumber and other Forest Products, Salt, Brick, Lime and

Cement.

Group No. 6.—Represents lowest grade of Commodities and the cheapest to handle, cars being loaded to full capacity, little, if any, risk from loss and damage, several cars usually moving together, some moving in train loads. This group includes Coal, Ore, Sand, Stone and Gravel, Cinders, Clay and Fertilizer.

Statement of Freight Traffic of the Missouri Pacific and St. Louis, Iron Mountain & Southern Railway Companies as a Whole and of the St. Louis, Iron Mountain & Southern Railway Company Intrastate in Arkansas, by Commodities, Showing Tons One Mile and Revenue Earned and Percentages of Total.

Calendar Year 1909.

LO	UIS,	IR	01	7	M	OU	N	TA	II		& i	80	U	TH	E	RN	1	RY	. (co.	
Intrastate.	Jo %	total.	1.93	3	10 01	10.04	96.		10, 42	10.10		0.0	99 94	2.5	101	100	3.40	1.30	4.87	27.65	100%
	Revesine.	02, 00,00 40	14 957 41	14.000.41	195 794 00	4 (11 00	7,591,00	1.407.09	136 983 09	and and and	61 774 49	14 40	436 507 93	500 05	2564 67	7.272.36	44.597.27	17,041,57	63.865.09	363,029.31	1,313,164.70
	Jo %	1 50	99	no.	: ă	66	18	3	99.89		7.90	-	40.77	3	123	.17	6.13	1.22	3.48	6.05	100%
																					72,270,148
System.	% of																				100%
	Кеуелие	8,958,829,08	521,482,58	800,667,56	490,250,38	912,444.66	1,702,029,21	537,778,91	2,811,715.82	1.021,623.30	1,033,028.03	298,152.37	7,489,149,75	391,965,30	135,431.95	296,004.75	1,405,115,19	787,207,52	4,004,224.01	6,774,592,59	35,431,692.91
	% of total.	13.43	1.29	1.03	1.34	2.43	3.05	7.2	12.81	5.29	3.58	1.00	20.03	88	.71	8	4.11	2.29	9.75	4.61	100%
	Tons,	591,187,133	56,909,711	45,408,962	58,762,372	106,636,371	132,957,358	67,813,286	563,183,034	787,846,122	144,170,531	48,044,198	1,312,674,369	36,425,100	31,130,486	20,673,741	200, (12,95)	100,450,818	420,456,209	202,000,001	4,393,315,508
		Gram	Comment	Cotton	Cotton Seed	Fruits and Vegetables	Dacking U. D. J.	Cost and Cole	Ore and Declare of One	Chang & see	Cale	Lumbar and Element	Cilmber and Forest Products	Poils	Machiner	Lime Brick & Comone	Miscellanaous	MEA	Merchandise & Med Assistant Co. 1	777	Total.

4579

Percentage of Tons One Mile and Revenue.

Calendar Year 1909.

									7	M	o. Pac. & I. M	I. & S. System.	Arkansas I	trastate.	
											Tons 1 mile.	Revenue.	Tone 1 mile.	Revenue	
No.	1	۰	۰	9							4.61	19.12	6.02	27.65	
No.	2				9						16.20	21.12	4.19	5.79	
											4.24	4.92	1.04	1.79	
No.	4		9	9	0	0		0			14.77	12.53	10.52	12.27	
No.	5							0			35.80	25.94	47.98	37.94	
No.	6		0				9	9	. 1		24.38	16.37	30.25	14.58	
											100.00	100.00	100.00	100.00	

4580 The Ton Mile figures in themselves are the result of two factors only, the net weight of the shipment and the distance it is hauled, i. e. the net weight is multiplied by the number of miles it is hauled and the result is tons one mile.

The percentages of tons one mile shows on sheet 3, are the tons one mile made by the commodities in each group, compared to the total tons one mile of all freight. The percentage of Revenue shown, is the Revenue derived from the handling and hauling of the commodities in the same groups, compared to the total Revenue derived from all freight traffic.

The tons one mile take into consideration, only the two factors named, weight and distance, whereas the Revenue takes into consideration not only these two factors, but every other factor brought into play during the process of han lling and hauling the freight.

These percentage figures show that the construction of rates generally State or Interstate, is based on the cost of doing this business, and that such departures as may, from time to time, be made by traffic officials for reasons testified to by them would not detract from the value of the Revenue as a basis of division of costs.

The revenue is governed entirely by the rate, based on cost, ton miles entirely by weight and distance; the heavy loading of low grade Commodities largely offsets the length of haul when compared to lightly loaded Commodities—for example, a carload of coal containing 80,000 pounds hauled 100 miles, would make the

containing 80,000 pounds hauled 100 miles, would make the 4581 same number of ton miles, as carloads of Merchandise containing 20,000 pounds hauled 400 miles; this gives you a common factor of 4,000 ton miles to measure the cost. The shipment of coal at the Arkansas Commission's rate would earn \$38.00, the shipment of Merchandise, \$82.00, or over twice as much. The Arkansas Commission's Standard Distance Tariff Rate for 400 miles is the same as for 300 miles and applies equally on one Line or two

Applying Interstate rates to the same shipments, a shipment of 80,000 pounds of coal hauled from from Jenny Lind to Wagoner, a distance of about 100 miles, would produce a revenue of \$52.00 and

a shipment of Class S. Freight of 20,000 pounds moving from St. Louis, Mo., to Donaldson, Ark., a distance of 400 miles, would bring a revenue of \$96.00. Again compare one carload of coal hauled 100 miles to four carloads of Merchandise hauled 100 miles. ton mile gives you the same common factor of 4,000 ton miles for the car of coal and the four cars of Merchandise. from the car of coal would be \$38.00 and from the four cars of Merchandise \$208.00, from four cars of Machinery \$144.00, from two cars (each 40,000 pounds) of wheat, \$80.00.

Q. You stated a moment ago that all cotton at compress 4582 points is in the statistics of the company as handled twice in

and out?

A. All of the cotton movement into the compress is counted twice, in and out.

Q. Is that true also of grain? A. Of grain milled in transit.

Q. That is what I mean, at milling points.

A. Yes, sir.

Q. That also is interstate?

A. Virtually all in Arkansas. It is not all.

Q. It is practically all?

A. Yes, sir.

4583 Fred P. Johnson, recalled, testified as follows:

Direct examination.

By Col. Moore:

Q. Mr. Johnson, how long have you been engaged in railroad accounting work?

A. A little over 21 years.

Q. All your business life, then, has been in the auditing department of the St. Louis, Iron Mountain & Southern Railroad Company? A. Yes, sir.

Q. You have, consequently, I take it, given a great deal of time and attention to railroad accounting, have you not?

A. Yes, sir.

Q. You are familiar with the manner in which the accounts and statistics in the auditor's office of the Iron Mountain road are made up and kept, are you not? A. Yes, sir.

Q. How has the data upon which the accounts of expense and maintenance in its several branches, equipment—and in fact all the ways in which it is divided between the different branches of the service and between the different classes of equipment, and in regard to which the statistics have been compiled, been obtained?

Does the Auditor work that up from his own views as to the proper basis of division or does he obtain information from the operating officials of the road to aid him in keeping accounts and statistics? State what the practice is on the Iron Moun-

tain Road, please?

A. The operating expenses of the railroad are taken from prac-

tically two sources: the payrolls and the vouchers.

In some cases the vouchers originate in the Auditor's office and in other cases they originate in the division office that incurs the expense.

The payrolls of the operating department are made up entirely in the division office from individual time books of each department. The distribution of these expenses is made by a division ac-

countant at the various division points.

In the Iron Mountain organization this division accountant in the maintenance of way department reports to the chief engineer of maintenance of way.

In the equipment department he reports to the superintendent of

machinery.

In the transportation department the division accountant reports

to the Assistant General Manager.

The accounts are made up monthly and submitted by the various superintendents to the general auditor. They are in that office checked and verified as to the total and consolidated into the system accounts.

These accounts that are rendered by the division accountants to the general auditor's office represent the charge to the expense account, and since July 1, 1907, have been compiled practically under instructions contained in circulars issued

by the Interstate Commerce Commission.

The compilation of these accounts and the division when necessary between freight and passenger, and the various statements in connection with the operating expenses, are made in the auditor's office.

Q. Mr. Ludham, a witness on the part of the state in this case testified that the operating man is the one least qualified to figure out his own cost, and that that is done by the accounting department

What is your view as to the qualification of these classes of of-

ficials for the purpose of distributing the operating cost?

A. I do not know exactly what Mr. Ludlam meant by that statement. But if he means that the accounting man is more familiar with the individual items of expense, and the causes that brings that expense about; and for that reason is able to say just how it ought to be apportioned and what kind of a statement ought to be compiled in order to enable the operating official to know just what it costs on his road, then I do not agree with him.

I will say this, that ever since I can remember, in the service of the Missouri Pacific Railway we have had frequent occasions to divide the individual items of expense. For instance, there may be

joint stations between two operating divisions or under the old
4586 Missouri Pacific System there may be joint stations between
two corporate lines, where the employés were performing
service for both companies or both operating divisions, and in order

to find the cost of each division it was necessary to divide this joint expense. In that case the matter was referred either to the general

superintendent of that territory or to the two superintendents of the individual divisions, for their opinions.

Judge HILL:

Q. Mr. Johnson, you have read Mr. Ludlam's testimony, have you not?

A. Yes.

Q. Don't you recall that he states it is the duty of the accounting official to acquaint himself with the facts from the operating official, and then devise a system by which these accounts could be properly separated?

A. Yes, sir, I believe he did say so.

Mr. MOORE:

Q. Mr. Johnson, state your views as to the correctness of the

opinion expressed by Mr. Ludlam?

A. The accounting official is hardly able to acquaint himself with the actual operating conditions from any particular part of his line, except by conferring with and getting information from the operating official.

Referring back to these items of station expense, the way that was handled was to refer the matter either to the general superintendent of that territory or to the superintendents interested and after an investigation by them they would either advise the auditor's office

of some arbirary percentage or some unit that they felt would 4587 represent the relative use of the service at that point by the And that recommendation was always actwo divisions.

cepted by the auditor's office.

Now, getting down to the operating costs of a railroad, most of the railroads in this part of the country had to compile a statement showing the relative cost per ton per mile and in some cases the cost per passenger mile, on different stations of their road. never known of any case where any road adopted such a system as that where the system itself was not practically installed by the operating official.

The Missouri Pacific road commenced compiling such a statement as that in May, 1900. It was done at the request of the general manager, and the system that was installed was installed under his instructions and brought by him from the road he was with before coming to the Missouri Pacific System. I have always understood that the formulas in use under that system were formulas which he

had originated.

Judge HILL:

Q. Was that Doddridge?

A. No, sir.

This particular statement which is compiled in the auditor's office, is a statement furnished to the operating official exclusively, and any change recommended by the operating official is always adopted; and no change is ever made in that statement unless it is recommended by the operating official.

That statement is the only statement compiled in the Iron Mountain office that pretends in any way to show the cost of operation in either the freight or the passenger service. The operat-

in either the freight or the passenger service. The operat4588 ing department in using that statement has never pretended
that it represents the actual cost nor do they ever use it for
that purpose. Its object is to enable the general manager or general superintendent to make a comparison of the cost of operation
upon one division in one month with another.

Q. Now, Mr. Johnson, I will come to that a little later.

You are familiar of course, with Exhibit I filed by the state in this case and also with Exhibit 26, upon which Exhibit I is largely based:

Will you state what you think of the correctness of the method adopted by the state for the purpose of ascertaining the tonnage carried on local and through trains in the month of October, 1907?

A. So far as the method used by the state is concerned in ascertaining the business handled by the local train, and then deducting those figures from the total figures shown by Exhibit 26 (which was filed by the railroad) is concerned, I do not believe it is fair and I do not believe it is a system which would be used by any railroad official.

The figures compiled in Exhibit 26, representing the total business for that month, are compiled from one source.

The figures representing the movement of local trains are com-

piled from another source.

The figures purporting to represent the local train move-4589 ment are not figures that are included entirely in the total figures.

I do not believe it is a fair assumption to make such deduction. That refers particularly to the tonnage figures.

That refers particularly to the tollinge lightes.

Q. You think correct information as to the relative tonnage carried on these trains could be ascertained in that way?

A. I do not believe you can get a correct figure.

Q. It has been shown in this case that there is a large amount of tonnage moving the month of October, which is not included in the auditor's accounts for that month: do you believe that omission could be accounted for or made up by any system of lap-overs from month to month that might exist in the relation of the auditor's accounts to the actual movement of the freight handled.

A. I have no idea how the lap-over from month to month will run. But in order to make this statement of any service we are compelled to assume that whatever buisness moved on the locals in the month of October and did not get into our accounts, was offset exactly by the proportion of business that got into the accounts but did not move. That proportion must be exactly the same, not only in volume as to ton miles, but as to the commodities themselves.

It seems to me a violent assumption to assume that the lap-overs from September to October and October to November and November

to December would be exactly the same.

4590 In order to verify that it would mean as much labor and time upon each of those months as was spent in compiling this exhibit I. It is a work which is practically impossible.

Q. But your view is that the lap-overs would not equalize mistakes of that sort, or rather, the misleading effect of comparisons of that kind.

A. I cannot imagine how such a condition could prevail.

Q. Mr. Wilmerding, the witness on the part of the state, and who was connected with the Oklahoma Corporation Commission testified that that Commission had never been able to arrive at any satisfactory basis for dividing expenses of railroad operation, or, he said "To get the railroads to agreed to anything." That they had been working on the question since November, 1907:

I wish you would state what you know about that and if the Oklahoma Corporation Commission has made any suggestion or request upon the railroads with which you are connected, the Iron Mountain

Railroad, in that regard?

A. The Oklahoma Corporation Commission, very shortly after its organization, undertook to establish a system of reports from railroads and called several meetings of railroad officials. I attended two or three of those meetings (representing the St. Louis Iron Mountain & Southern Railway) and I do not understand that the Oklahoma Corporation Commission ever attempted of their own accord to adopt a system for ascertaining the cost of state and interstate freight. But the only order the Oklahoma Corporation Commission has issued to the railroads relative

to this matter, is their Order No. 201. That order was sent out to the railroads two or three different times, as tentative

orders.

There were several conferences with the Commission and the substance of those conferences was that the railroads would furnish whatever information the Corporation Commission of Oklahoma asked for.

Order No. 201 (which is a standing order) is in force today, and merely provides for the items under expense accounts and revenue

accounts that the Commission wants.

So far as the division of those operating expenses between freight and passenger, or between state and interstate, there is no order in force from the Corporation Commission, and the railroads are expected to make this division upon any basis that they might believe to be fair.

The Iron Mountain has been furnishing the Commission with a

monthly statement, ever since its orders was in effect.

The statement undertakes to show the state freight and passenger revenue; and the state freight and passenger operating expenses.

We are furnishing that statement upon the basis used in all these

rate cases, which is the revenue basis.

During my attendance at those meetings and conferences with the Commissions and with its representatives. I have never heard of any plan proposed by that Commission for such a separation of expenses and earnings.

Q. Were you in any way connected with the Missouri Rate Case,

and if so, state in what way?

4592 A. I either compiled or was connected with the compilation of all of the exhibits that were furnished by the Missouri Pacific Railway in that case.

I attended all of the hearings before the Master, with the exception of one week at Chicago; and all of the hearings in the Circuit Court,

with the exception of one day.

Q. Mr. Wharton testified that the testimony in the Missouri Case indicated that the main difference in the cost of state and interstate traffic was the cost of the local and the through trains:

Is that your understanding of the testimony in that case, that the main difference was in the cost of local and through trains to the ex-

clusion of other elements of increased cost of state traffic?

A. No, sir, I think there were a number of reasons given for the extra cost of state freight, as contributing very largely to that extra cost, in addition to the local train expense.

Q. Has the Iron Mountain Railroad ever made a practice of dividing the expense of maintenance of way between local and through trains in such manner as has been adopted in this case?

A. No, sir, I do not remember of any case where the Iron Mountain has ever had occasion or ever attempted to ascertain the cost of an individual freight train, whether it be a local or a through

4593 train.

Q. What do you think of the state's method of dividing the expense of maintenance of way between local and through trains? If the separation had to be made do you believe the manner adopted by them, the car mile basis, is proper from your standpoint as an accountant and from your experience in railroad accounting?

A. I do not see that the basis adopted by the state, so far as the maintenance of way and structures is concerned, brings about any closer relation to the expense of those two classes than any other arbitrary method would be, and I have no idea how the exact expense of either local or through trains or of one individual train, could possibly be ascertained with any degree of accuracy.

Q. You have heard the testimony in this case that a large proportion of the expense of maintenance of way and structures is not due

to operation, but to other causes?

A. Yes, sir. Q. In that view do you think the method adopted by the state is

a proper one?

A. No, sir, the larger the proportion of that class of expense that is due to the elements the less accurate would be any unit either of car miles or train miles, because, as has been stated by other witnesses, neither the train miles nor the car miles would have any effect upon that class of expense. It goes on regardless of the volume of business.

Q. It is more or less of an overhead expense than other-

4594 wise?

A. It seems so to me and it is more of a general expense than any other item in the operating department. It is not a regular By that I mean that the expense which is incurred this month is not taken into the account this month or next month or possibly not this year, and the traffic or the car movement has no bearing upon the amount of money which is taken into maintenance of way expense in the month in which the car movement is made.

Q. I notice in ascertaining the engine miles for the purpose of making the division under that heading, they have assumed that 270,564 engine miles and on the next sheet speaking of maintenance of locomotives under "Maintenance of Equipment" there is an enumeration of 130,150 engine miles for yard locomotives:

Is that omitted from the figures to which I first called your atten-

tion under the head of "Maintenance of Way?"

A. The item of 270,564 engine miles as shown in the state exhibit K under the heading of "Maintenance of Way and Structures" is road engine miles. While under "Maintenance of Equipment" yard locomotive mileage is shown to be 130,150.

This 130,150 miles has been omitted from the engine miles or wheels taken into account under "Maintenance of Way and Struc-

tures."

The yard engines are incurring an expense in maintenance of way, maintenance of tracks, and the use of structures to at least the same extent as the road engine mileage is; and if the wheelage basis is to

be considered a reasonable basis for dividing maintenance of way and structures expense, I do not understand why the switch engine mileage should not be included in it.

Q. What effect would its omission have upon the percentage of

cost under that heading?

- A. It is 130,000 miles, practically 50% of the total road engine miles, and it would have a bearing upon the division to the extent that that mileage should be increased to equalize the switching car movement.
- Q. Mr. Wright was examined in regard to the allowance made for road switching. He submitted his statements based upon the average number of cars set out and picked up at stations on the Iron Mountain road:

Have you looked into Mr. Wright's statements to see whether they were made upon a correct basis or not?

A. Yes, sir, I have read his testimony on that subject and secured the work sheets upon which he based his calculations.

Q. Are his calculations made upon a proper basis?

A. I do not think they are,

Q. State now what the difficulty with them is?

A. In the first place, in taking an estimate that Mr. Wright made, he arrived at the conclusion that 40% would be more nearly correct than 50%, to be added.

He took as his basis of calculation a train run from Newport to Little Rock; he estimated the number of cars set out and the number of cars picked up and assumed that the engine in local service would

make two trips for each car. He then estimated the length of the passing track by multiplying the car capacity of that track, as shown on our timecards, by thirty and in that way ascertained the number of feet; or, reducing it to miles the number

of miles made by that local engine in switching service.

I notice in his work sheets he allows at Bald Knob ten cars, five set out and five picked up. But for some reason allows but ten engine trips.

At Kensett he allows four cars set out and four cars picked up.

making eight in all: but allows only ten engine trips.

Now, if those two items were changed, allowing two engine trips for each car, as was done in the case of every other point, the percentage would be increased to about 63%.

But there is this objection to that basis: the mileage of those pass-

ing tracks is not the car capacity multiplied by 30.

The method used by the railroads in ascertaining the car capacity, is to take the actual length of the track, allow various lengths at each end of that track for leads and then divide the balance by various figures, from 36 to 40, based upon the length of the car and the space between them. Such a method would naturally bring about a much larger mileage for that passing track.

Q. Speaking of leads, what is the allowance for that? A. It varies, I think, from 75 to 125 feet at each end.

There is this additional objection to Mr. Wright's method. 4597 in my opinion, and that is that in making his assumption as

to the amount of mileage made by switching engines, or the engine engaged in local service, he assumes that all the switching done by that engine would be done on the passing track and makes no allowance for other tracks that would be maintained at the various stations.

Q. Where is the switching usually done? On the passing track

or on the other side tracks and industry tracks?

A. My understanding of the method of handling that kind of work at the local station is, that there would be no more switching done on a passing track than is absolutely necessary and the side tracks and industry tracks are maintained for that purpose.

Q. What is the purpose of maintaining a passing track?

A. The name indicates that. It is for the purpose of allowing a train to take that track for the purpose of enabling another train to pass by

Q. The habit of switching on the passing track would probably

defeat the purpose of their maintenance?

A. It would in many instances.

Q. The fact remains that the majority of switching is done on the side tracks maintained for that purpose?

A. Yes, sir, on tracks maintained for that purpose.

Q. Is the mileage of such tracks included in Mr. Wright's figures? A. No, sir, as I understand from his exhibit and testimony it is the mileage he arrived at by multiplying the car capacity

4598 of these passing tracks by thirty.

The car capacity of the passing track is the only information of that kind that was shown upon our timecards, from which this information was taken.

Q. That is probably the way he was misled, seeing it on the timecard?

A. I do not know what his idea was.

Q. The real switching tracks, and the industrial tracks mileage do not appear on the timecard?

A. No, sir.

Q. Mr. Wright also testified he made a comparison from 4599 the time table of the time allowed to #98 and #96 local trains between Texarkana and Little Rock and train #56, the redball train between same two points and found there was about 40%more time allowed the local train than the through train to make the same distance. He says that would tend to support his statement:

Now, Mr. Johnson, I wish you would state to what extent those schedule allowances and allotments are carried out in actual practice and what is the value of Mr. Wright's deduction there?

A. I do not believe it is fair to make any assumption of the amount of switching that might be done by an engine on a local train, by comparing the time card mileage of one class of train with the time card mileage of another class.

In looking into that matter I took our wheel reports that are made by the conductors and which were largely used by the state; and from that drew off the running time of the local trains between Little Rock and Texarkana; and of the through train between the same points, during the month of October, 1907, for each of the 31 days.

We found that the average running time of the through train was sixteen hours and seven minutes. And that the average running

time of the local train was 25 hours and 18 minutes.

That would indicate a difference of about 57%.

Then going further we took the line between Hoxie and Argenta and the average running time of the through train for that entire month was 10 hours and 35 minutes; and for the local 4600 train it was 20 hours and 45 minutes, a difference of 96%.

Some of the witnesses for the state have testified that they believed that that was some indication of the amount of swiching that was

done by the local engine.

If that is a unit that can be used to compare the relative service, it seems to me the actual time consumed by those trains would come nearer than the timecard or the schedule time, because our experience has been that very few local trains make their schedule time.

Q. Mr. Wilmering in his testimony took the position that the cost of each locomotive should be ascertained and divided on the basis of the mileage made by the engine, in ascertaining the cost of the locomotive under the head of "Maintenance of Equipment."

Is such a scheme as that practicable, Mr. Johnson?

A. My understanding of Mr. Wilmering's testimony was, that he thought the repairs of each yard locomotive should be ascertained and that these repairs should be divided between the class of cars switched by that locomotive, and such a basis as that is impracticable and could not be compiled from any system of records that the railroads might adopt.

In other words, no railroad could undertake to keep a record of the number of car miles in local and through and strictly switching service, that might be handled by the individual switch

4601 engine in any yard.

Q. The same witness also testified that station expenses should be divided on the basis of the number of tons handled and that the tons handled should be doubled in the case of state freight, and one additional terminal should be added to interstate freight for each 100 miles of average haul:

What do you think of such a method of ascertaining the average

expense?

A. I do not believe that method is at all right; and especially so so far as station expense is concerned, because after the freight is billed and loaded and incurs all the expense that is incurred by a ton of freight for forwarding, certainly that expense would not be multiplied every 100 miles of that ton movement.

I think the exhibits introduced by Mr. Moore would show that

beyond any shadow of doubt.

The cars might be billed from St. Louis and certainly would receive no service at the hands of any station agent in Arkansas.

Q. Mr. Hillman testified that the cost of yard service should be ascertained directly as between state and interstate on the basis of the tons instead of dividing that item between local and through trains:

What effect upon the result in the figures produced by the state here would such a division as that have, if divided in the manner

suggested by that witness?

A. If the total yard service, which amounts to \$293,000, were divided between state and interstate business, it would then result in the same percentage of that total expense being charged to state business as was used in the case of station service; or practically one-third of all of the yard expense upon that basis would be charged to intrastate freight. And then that would assume that every ton of interstate and every ton of trans-state freight received a full yard service within '' state of Arkansas.

Now, in an amended exhant (Number Y) the state has changed this method of dividing station service by eliminating trans-state freight, and if that is done to yard service as well, it would result in a charge of almost 50% of the total terminal expense, or practically

\$140,000 being charged to state freight.

The result would tend to very materially reduce the percentage of return upon the value of the property, so far as state freight is concerned.

Q. What amount is chargeable to state freight upon the basis adopted in the exhibits filed in this case?

A. The yard and terminal expense is divided by the state in Exhibit K, first as between local trains and through trains.

Then the expense apportioned to each class of trains is divided between state and interstate tonnage on the ton mile basis.

The result of that is that \$23,468.64 has been charged to 4603 state freight on account of yard service.

Q. On Mr. Hillman's plan it would be what?

A. If we were to adopt the tonnage basis and charge to interstate

and trans-state freight one full terminal handling, then the proportion of the total expense that would be assigned to state freight would

Q. And that would be the result of the working out of the plan

suggested by Mr. Hillman, would it?

A. Yes, sir.

Right in that connection, on that same page of Exhibit K, I would like to call attention to a statement that is made there and I think has been overlooked by the state:

Under traffic expenses at the head of page 4 they say "These

expenses are incurred in securing and looking after traffic.

"The amount apportioned to the state of Arkansas is based on the revenue train mileage in that state as compared with the revenue train mileage of the whole road."

Our traffic expenses are apportioned between states on the basis of the gross earnings and not the train mileage. That is shown in our statement 5 on Exhibit 3, and I think our basis for dividing that expense between states is in exact accord with the basis adopted by the state in dividing the proportion that is assigned in Arkansas, between state and interstate. That is, the gross earnings basis in

Q. What do you think of the way in which "Other train expenses"

is attempted to be apportioned on Exhibit K?

4604 A. I do not believe we can come any closer to the expense incurred by local trains and the expense incurred by through trains, by a division on the train mileage of such accounts as are included in this item than we can under maintenance of way and

Out of a total of \$132,000, 73% of that amount is made up of such items as wrecks, injuries to persons, damage to stock on the right-ofway, and fires set out by sparks, and damage to other property.

In the next item, loss and damage to freight, the state has undertaken to assign directly to state and interstate freight the amount of expense taken into account in that month, for loss and damage to freight; and the result of that is that they found 24.29% of the total expense under loss and damage to freight was paid for damage to intrastate shipments.

Now, that was an actual ascertainment from the vouchers themselves. And so far as the greater part of the damage to stock, wrecks, injuries to persons, are concerned, that expense could have been located either to the local train or the through train with the same

degree of exactness as the loss and damage to freight was.

I do not believe the train mileage has anything to do with that class of expense at all.

Q. Mr. Johnson, you said the cost attributed to state freight on account of loss and damage to freight was actually located and was 24,29% of the total: 4605

Is there any other item which was actually located by the

state accountants in going through these figures?

A. The nearest to an actual allocation of expense to that was the wages paid train crews.

They took that from the time books, showing the amount paid the crews upon each train run.

The only difference between that method and an exact amount would be the question of overtime and the last two or three days of

each month that might not get into our time books.

But this actual allocation of loss and damage to freight resulting in a charge of 24.29% results in a larger charge in these accounts for state freight than the revenue basis would assume, even with 100% added for extra cost.

Q. I will call your attention to the division of general expenses

in Exhibit K:

Will you state what you think about that method?

A. I do not believe the amount of money that is expended in the operation of a railroad say for expenses in the transportation department has anything to do with the cost of operating our general offices.

The greater portion of general expenses consists of the salaries and expenses of the employes in the General Auditor's office. And, in turn, the greater part of the General Auditor's expense is for the purpose of accounting for the revenue of the railroad com-

4606 pany.

It also includes, for instance, the freight claim department, which is the largest single department in the General Audi-

tor's office.

I cannot conceive of any way by which the cost of maintenance of equipment and the cost of maintenance of way or the cost of the transportation department has anything to do with this expense.

A large item under "General Expenses" is our Legal Department And the increase or decrease in the amount of expenses in the law department bears no relation whatever to the expense of the several operating departments of the railroad.

I do not see how dividing the general expenses on the basis of the fixed charges in that department would bring about a very close cost.

Q. You mean to show what is the proper relation between the two?

A. Yes, sir.

Q. Our old friend Mr. Wilmering, whom we have been quoting here, also said in his testimony that the ton mile is the standard measure or unit of freight cost in the real art of railroading, and has been used for many years.

He further says the results are accomplished after great expense and the compilation from waybills and that it is an expensive undertaking and if there was no real use for it why should the railroads work it up. And if it is not a good unit why should it not be

discarded.

4607 Yet the railroad companies instruct their operating men to

watch their cost per ton mile:

I wish you would state if Mr. Wilmering's impressions are correct and also state what is the real purpose of those several units that have been discussed here, as they are used in the operating accounts of a railroad company?

A. I do not think the cost per ton mile is a unit upon which the

operating official depends exclusively in judging of his operating

These operating statistics that Mr. Wilmering undoubtedly has in mind deal with three units, for these comparative purposes. They show the cost per train mile, they show the cost per car mile and

they show the cost per ton mile.

I do not believe that any operating official ever uses one without the other nor do I think the general operating official would ever criticise the cost per train mile or per ton mile upon an operating division in Missouri as compared with an operating division in

Nor would they compare that relative cost as between any two

operating divisions, even in one state.

The real use which is made of this cost per ton mile unit in the operating department is to judge of the individual operation of one division through different periods of the year and during different

I believe that the cost per ton mile as understod by Mr. Wilmering has been discarded by most of the railroads and instead of

using the cost per revenue ton mile the railroads are now getting down to a basis of cost per gross ton mile, including not only the freight but the weight of the car. And I think, too, that they are getting away from the cost and dealing rather with the physical operations. I do not think that the cost per ton mile as an operating unit was ever given the consideration and the value that a great many people seem to think it has.

So far as our road is concerned, we have tried twice since May, 1900, to devise some better scheme for showing the comparison on the various operating divisions. And perhaps sometime we will reach a unit that will be satisfactory to the operating man-but we have

Q. Mr. Johnson, has your work been connected with these units? A. When this operating sheet was established in 1900 on our road I was transferred to that department and in July, 1902, I was placed in charge of the department and my duties were entirely in connection with 'igures of that kind, up to the time I left the

Q. So you had the opportunity to familiar knowledge of these

statistics and the purpose for which they were used?

A. Yes, sir, I have compiled them ever since our road had them.

Q. What do you think of the method pursued by the state accountants in Exhibit K, in dividing the state and interstate ton miles for six months between local and through trains on the 4609 basis of ton miles, of October, 1907, instead of using the October percentage as they have done in every other case.

A. I think if this general scheme is worth anything it would have been fairer to the railroads if they had adopted the percentages they found to represent the volume of of business moving on those trains, in the month of October, rather than to have adjusted it to the six

They have used percentages based upon October figures in ascer-

taining the cost under each expense account; and then in undertaking to find out how much of the total local train expense should be assigned to state business, they take the percentage of the state and interstate business on the local trains applied to the ton mileage for six months.

The conditions might be entirely different in the month of July or in the month of November. I do not believe this method reduced the general percentage to any more correct basis than the October percentage itself would have done. And it results in a reduction of practically 2 1/2 per cent of the total expense on the local trains and about 2/3 of one per cent in the total expense of the through trains being assigned to state freight.

If the railroad itself had applied the same basis in compiling its figures and had used the revenue percentage for one month rather than six months, we would have brought about an entirely different

result in our net earnings and percentage of return upon the

4610 value of the property.

It seems to me it shows that one month's percentages are hardly fair, especially when you take into consideration the amount that is involved.

I do not see that this basis gets any closer to the desired results than would have been the case had they taken the percentages for the month of October. It simply brings about a different figure.

Q. What do you think of the disposition made by the state's accountants in this exhibit of miscellaneous freight revenue, or, rather the use that has been made of it.

A. In Exhibit K the state has undertaken to divide miscellaneous revenue of \$122,000 between the state and interstate traffic on a basis of the percentage of actual freight revenue.

I believe I testified in the original examination that I did not

believe that could be done. I do not believe so yet.

Q. I want you to state in that connection why. Give the reasons why you think it cannot be done?

A. The reason is that in this \$122,000, there are items that bear

no relation to the actual freight earnings.

We have included in the \$122,000, an item of \$37,000 for

switching service.

I do not understand the percentage of state freight to the total freight revenue has anything to do with that switching revenue.

4611 There is an item of 520,000 for car service:

The same objection would apply to that, that applies to the switching revenue.

There is \$55,000 for miscellaneous rents:

I do not think items of that kind are divisible between state freight and interstate freight.

Q. Up to this point I have examined you in connection with Exhibit K and in regard to such matters as I thought you would be familiar with from an accounting standpoint.

If there are any other matters I have omitted, they have appertained to operating conditions with which you are not so familiar.

I want to call your attention to a few matters connected with Exhibit M, of the same class, relating to accounting matters, about which I examined you in connection with Exhibit K.

Please turn to "Traffic Expenses" on page 2 of Exhibit M:

You will find nearly 20 per cent of that expense is charged to mail and express. I want you to state what relation, if any, there is between that expense and mail and express:

I should like to get that clearly stated and you should know some-

thing about that?

A. So far as the accounts of the Iron Mountain Railway are concerned, I do not believe the traffic expense bears any relation to the mail and express service.

4612 There is no soliciting of express business nor is there any

soliciting of the mail.

The compensation that accrues to the railroad is by contract.

There is no official whose salary and expenses are charged to this account and has anything to do with the making of those contracts.

If the state is attempting to adopt bases that will come nearest to reflecting the actual expenses, then the revenue basis, which includes over 19 per cent of mail and express earnings, is not the proper basis on which to divide this \$53,000.

The handling of our mail business is practically all done by a separate department and in our classification the expense of that department is charged to our general expenses. That is, under our classification that was in force when these figures were compiled.

The contract in connection with the express business is handled by our executive officers. And the expense that might be incurred in making that contract or in watching its operation after it is made, would be charged to general expenses.

So I can hardly imagine any expense charged to traffic that would

bear any relation to the mail any express revenue.

Q. "Station expenses" I observe they have also divided on the basis of the number of passengers handled: 4613

What are your views in regard to that?

A. I think any rule that would require these expenses to be divided on the basis of the number of passengers handled ought to be used in exactly the same manner as would a similar expense be divided under freight. That is, the trans-state passengers ought not be charged with any more of those expenses than would the

The amount involved is perhaps small, but under this basis it assumes that all trans-state passengers incur just as much station handling or just as much station service as the intrastate passenger, who may originate at a station in Arkansas or is destined to a station

Q. To use Mr. Doddridge's illustration, the trans-state passenger is the man who goes through from the borders of the state and is carried like a man going over a bridge?

A. That is my idea of a trans-state passenger.

Q. Perhaps the bridge simile would be a little closer there than in the freight matter, would it not?

What station expense is incurred in regard to the trans-state passenger, who has no occasion to get on or off the train and no call for any station service?

Is there any service at all rendered at a station in Arkansas to a trans-state passenger? You have traveled on the trains. You know they have a dining car. I don't know of any service that would be rendered to him, and I want to know if you know of any?

A. If the passenger buys a through ticket to a point reach-4614 ing beyond the state of Arkansas, I cannot conceive of any item of expense which should be included under station service. that would be charged to that passenger.

Q. It is the universal rule that trans-state passengers, as well as all other passengers, buy a ticket from the origin to the end of their

trip? A. Yes, sir.

Judge HILL:

O. Suppose you had a fellow who was going from Coffeyville, Kansas, to Memphis, Tennessee over your line, what station service would be have in Arkansas?

A. If he had a through ticket I do not see that he would have

any station handling in Arkansas.

Q. What about Memphis?

A. If that is the final destination, there is very little expense at

Memphis that would be incurred.

But that is an exception in Arkansas, where we have our Memphis expense in here (indicating exhibit). I had not thought of Memphis.

Q. Take it at Fort Smith. There is the same proposition there,

isn't there?

A. From Memphis to Fort Smith? He would not be a transstate passenger.

Q. He would be an interstate passenger, with two handlings?

A. Yes. sir.

Q. Suppose you had a trans-state passenger who took one of your trains in Missouri, say the Hot Springs special at St.

Louis, and changed at Little Rock to the through train going on to the City of Mexico, would not be have one station handling at Little Rock?

A. No, sir, I cannot say he would incur any of the expense charged to this account.

Q. Would not he use that station just like any other passenger getting off at Little Rock?

A. He might use that station but the maintenance of that station

is not charged to "Station expenses"

Q. He would have the same service, whatever classification that might be, as would the man who would get on at Little Rock and go on to San Antonio?

Col. Moore: In these station expenses?

Judge HILL: What character of expense are you talking about there?

Mr. Johnson: Station expenses—the wages of the agent and his office force.

Q. If the man who got on your train at Little Rock was going to El Paso, he would have one handling?

Col. Moore: He is an interstate passenger.

A. He would buy a ticket and get service from that station force.

Q. Suppose a man came down from St. Louis on the Hot Springs special, but could not go on with that train further, he would get off at Little Rock, take his baggage off, and then pursue his 4616 journey from Little Rock to Texas on another train. would be the difference between him and the man who got

on the train at Little Rock in the first place?

A. I don't know what he would be doing on that train, in the first place.

Q. Assume that he did that. I know some folks did that.

A. If he did get on that train and bought his ticket at St. Louis for El Paso and changed trains at Little Rock, he would not receive any attention at the hands of the station force, to any such extent as the passenger who buys his ticket and checks his baggage at Little Rock.

Q. He would receive attention?

A. He would receive attention from the station force if his baggage was transferred from the Hot Springs special to the Texas train. But if the baggage had been checked and sent on through,

he would not receive even that service.

Col. Moore: In railroad practice, if there are two trains going out of a station, one a trans-state train and the other you might call a local train in the sense you speak of the Hot Springs special, would a baggage man send baggage that belonged to the trans-state passenger over the special train, even though the passenger for some purpose of convenience might want to get off at Little Rock? Would not he ship it off on the through train from St. Louis?

A. I do not know positively but that is my impression, that he

would do it that way.

4617 Judge HILL:

Q. That passenger while waiting in Little Rock would receive the benefit of the heat of your station, and good drinking water you had there for him and the light, and the cleaning force, and all of those manifold blessings that are heaped upon the passenger visiting that station-in 1907.

In other words, the point I want to make is he would be treated just like the other man except for his ticket and baggage, would

he not?

A. Yes, sir, and to this extent: that of the station service that is treated of in this item, amounting to \$57,000, not more than 3% would be included in that heat and light and "other blessings" he would receive as compared with the service that would be rendered by the station force proper, that is, the labor.

In other words, the heat and light chargeable to station service

is a very small part of the total station expenses.

Q. Cleaning is the smallest part—I mean for the old station.

Col. Moore: That was infinitesimal, I think we can all agree.

Col. MOORE:

Q. (Resuming:) Counsel called your attention to the Memphis situation: what proportion of the trans-state passenger traffic would be affected by that situation?

A. I have no idea what proportion of the trans-state passengers credited to Arkansas would originate or have its desti-4618

nation in Memphis.

Q. It would be an infinitesimal proportion, would it not?

A. I would not care to even estimate it.

Q. In the general expenses of this exhibit, the salaries and expenses of train auditors is included, is it not?

A. Yes, sir. Q. What do you say to the propriety of dividing that on the

basis adopted there, of direct charges?

A. The state has undertaken to set up a basis that they believe represents the actual service performed under each of these oprating accounts.

If that is a proper method to use the expense incurred on account of train auditors, which is included in "General Expenses", merely for the purpose of comparison, should be eliminated from this account; and not divided upon the same basis that the balance of the general expense items should be divided.

Q. On what do you base that opinion?

A. The train auditor's expense is an expense in connection with

the handling of passengers upon the train.

The Interstate Commerce Commission itself provides that this expense shall be charged to transportation expenses, but under the system in force in the Iron Mountain office prior to the Interstate Commerce Commission classification, this expense has always been charged to general expenses, because they are employees who report direct to the general auditor.

Under our present method, where we conform entirely to 4619 the Interstate Commerce Commission classification we include

this item under transportation expenses,

But the unit that would indicate the expense of train auditors is entirely different to the unit that would be applicable to all these other items under "General Expenses". And it seems to me that an item which is some forty odd thousand dollars should be treated

Q. They have no service to perform except in connection with the

passengers on the train, do they?

A. That is all. The collection of tickets and the collection of cash fares. They have nothing to do with the train movement itself.

Q. Down at the bottom of page 4 of Exhibit M, where they seek to divide the cost of coach and Pullman service between intrastate and interstate, they have in that first table there assumed passenger miles 73,842,620, and they have divided that on the percentage which each of those classes of passengers bear to the total.

Does that include Pullman mileage?

A. The passenger miles they have used as basis for dividing coach expense also includes the Pullman car mileage.

Q. Then have not they divided the Pullman mileage below on a

different basis?

A. Then in dividing the Pullman expense they assume that whatever passenger miles were carried in Pullman cars were 4620 approximately 25% state passengers and 75% interstate passengers.

The result is that they have practically used the Pullman pas-

senger mileage twice.

It is a factor in the percentages that were used to divide the

coach expenses,

Now, if not more than 25% of the Pullman passengers are state passengers that would indicate that 75% of them were of much longer haul than the state business. Or, to put it differently, the interstate passengers are of much longer haul than the state passengers, and the result would be that by reducing the total passenger miles to the extent of the Pullman passengers, the change in these percentages would be very substantial; because you would reduce the interstate passenger miles in larger proportion than you would the state passenger miles.

Q. What difference would it make in the figures, Mr. Johnson? A. In the month of October, 1907, the records of the company show there were 2,188,495 passenger miles in Pullmans while the

total passenger miles during that month were 12,566,398.

Assuming of the two million Pullman car passengers 25% were state passengers and 75% were interstate passengers, it would make a difference of about 8% in the coach expense chargeable to state passengers. That is, it would increase the cost of handling 4621 state passengers in coaches, about 8%.

Q. That is a large item, is it not?

A. Yes, sir.

Q. What is the amount of it. I mean the total coach expense?

A. \$896,378.

Q. That would make a very substantial difference, would it not?

A. Yes, sir.

O. Have you made any check of the passenger car mileage used in this exhibit, for the purpose of ascertaining whether it was correct or not?

A. Yes, sir, we checked the passenger car miles as shown by the

state in their exhibit, and found some slight variation.

The result of our check shows that there were 785,703 coach miles as against 751,229 coach miles. This makes a change of about 2% in the percentages.

Q. That is for one month, is it not? A. Yes, sir.

Q. Multiply that by six months and that difference would be exaggerated probably, would it not?

A. No, sir, it would still make the same difference of 2% in the six months' mileage.

Q. What I mean is, that the effect upon the revenue for the six months' period would be changed?

A. The effect of that 2% on the total expense for the six 4622 months, is of course a considerable item. But the difference in that mileage more than anything else indicates that one month's percentages are hardly fair to decide six months business upon. That is the point brought out by a comparison of the gross earnings for six months as against the gross carnings for one month.

Our Exhibit shows that the percent of state freight earnings to total freight earnings was 13.41. While the month of October (one of

those six months) it was 14.75%.

While that difference is small, being about 1.34%, yet when it is applied to the total operating expenses for six months, it would have resulted in an additional charge to the state freight of over \$45,000.

Had the railroads used one month's percentage instead of six months, we would have charged to state freight \$45,000 more than

we did.

While the difference in percentage is small it might make a difference in the result applied in this manner.

Direct examination of Mr. Fred P. Johnson continued.

By Mr. MOORE:

Q. I believe the local car miles in Exhibit I includes cars 4623 hauling company material.

A. Yes, sir, that is my understanding.

Q. How many of them are there?

A. There are more than 3,000. I do not remember the exact number.

Q. Is the company material in local and through trains included in the tonnage statistics in that exhibit?

A. No, sir, the tonnage statistics included in Exhibit I are merely revenue tonnage.

Q. What effect would that have upon the average per car, as shown

on the exhibit?

A. I think the fact that the car mileage includes the cars hauling company material would have the effect of decreasing that item of the average loading of freight per car. And I think it would decrease it very materially.

Judge HILL:

Q. Do you mean both local and through?

A. Yes, sir.

Col. MOORE:

Q. What is the mileage of those cars of company material? A. The car miles of company material would be approximately

90,000 miles; that is, of local trains.

Q. Mr. Johnson, is the assumption that the increase in the average revenue per ton per mile in January, 1909, as compared with the six months ending December 31, 1907, represents the average increase in rates or revenue resulting from the railroad operation of November, 1908, fair?

4624 No, sir, I do not think an assumption based upon the figures that that assumption is based upon is at all fair.

Q. Explain why you think it is not proper?

A. I can explain that better perhaps by dealing with similar figures upon our own road.

Q. Use anything to illustrate it.

A. During the six months ending December 31, 1907, the average revenue per ton mile of state freight on the Iron Mountain road was 13.38 mills.

During the six months from December, 1908, to May, 1909, which was the period in which the Company tariff was in force, the average revenue per ton per mile under the company rates, was 20.95 mills.

Now, had the Commission tariff been in force during that period the average revenue per ton per mile would have been 14.57 mills.

During the month of January, 1909, which is one of the six months in this latter period, the average revenue per ton per mile under the company's rates was 21.63 mills.

Had the Arkansas Commission tariff been in force during that month the revenue per ton per mile would have been 15.01 mills.

During the six months ending November 30, 1909, which is a six months' period under the Court tariff, the average revenue per ton mile was 16.85 mills. And had the Commission tariff been in

force during that period the revenue per ton mile would

have been 13.36 mills.

That shows that the percentage of increase in the average revenue per ton per mile in January, 1909, under the Company's tariff as compared with the six months ending December 31, 1907,

under the Commission tariff, was 61.7%.

The percentage of increase in the average revenue per ton per mile in January, 1909, under the Commission tariff as compared with the six months ending December 31, 1907, was 12.2%. percentage of increase in January, 1909, under the company tariff as compared with the same month under the Commission tariff was 44.1%.

That shows that the increase in the average revenue per ton per mile in January, 1909, brought about by the increase in rates was

44.1%.

The increase in January, 1909, under the company tariff as compared with the six months period ending December 31, 1907, was And this latter per cent would compare with the 96% which has been referred to as applying to the Cotton Belt in this

This statement indicates that the month of January, 1909, shows an increase of 12.2% in the average revenue per ton mile under exactly the same rates.

Q. The Commission rates? A. Yes, sir, the Commission rates.

And that increase of 12% is brought about by the difference in

the commodities and the difference in the length of haul and the various other items that would naturally change the revenue

4626 per ton per mile, other than changes in rates.

The statement shows that for six months ending November 30, 1909, under the existing Court tariff, there was an increase of 26.1% in the average revenue per ton per mile.

Q. Have you a statement showing those percentages to which

you have just referred?

A. Yes, sir.

Col. Moore: I will offer in evidence the statement just identified by Mr. Johnson.

The paper referred to is marked "Complainants Exhibit 54." Said exhibit is in the words and figures following to-wit:

For Exhibit 54, see Volume 8, page 5722.

4627 Q. Mr. Swain's Exhibit 23, showing the average reduction in rates made by the Arkansas Commission, is made on five different distances without regard to the average volume moved under each distance or the average haul of the commodity moving.

Can the average reduction be shown in any such way as that?

A. No, sir, I think that is merely an assumption on Mr. Swain's part and of course it was not based upon any actual data.

The average could not be ascertained in that way with any degree

of accuracy.

Taking those same commodities that Mr. Swain referred to there was the reduction on bagging and ties. That percentage for 25 miles was 21%.

For 100 miles 39 percent.

For 200 miles, forty-nine percent.

And the average arrived at, as Mr. Swain did, was 39 percent.

Now, if the greater volume of business in that commodity moved 200 miles, then the actual decrease in revenue of the railroad would have been nearer 49% than 39%.

While, on the other hand, if the greater part of the bagging and ties moved 25 miles, then the reduction in the revenue to the railroads would be less than the average Mr. Swain showed.

4628 And without the movement of those various commodities it would be a hard proposition to undertake to estimate the decrease in the revenue that would accrue to the railroad by any change in the tariff.

Q. Does the Iron Mountain Railroad keep and furnish its traffic men statistics relating to the movement and the volume of traffic to

aid them in making rates?

A. Yes, sir, it furnishes the traffic department and all departments of the railroad with a large number of statements bearing upon this subject.

Q. State what they are.

A. One of the statements that is furnished by the Auditor's office to the traffic department is a statement similar to that filed by Mr. Roth this morning, showing the revenue and the ton miles of a large number of individual commodities.

That statement shows all of the information that is necessary in

order to obtain the length of haul, volume of business, and the

average revenue received per unit.

They are being furnished sometimes with weekly reports and sometimes with daily reports showing the car movement and the direction of tariff and the increase and decrease in any particular commodity.

Q. Mr. Wharton filed an exhibit in this case (which is marked Exhibit Z) containing a comparison of transportation cost per train mile for the years, 1907, and 1897; and the same on the St. Louis

Southwestern Railway:

I wish you would state how the traffic conditions of those 4629 two years compare with other years and if this comparison

of two years would afford a fair comparison?

A. Exhibit Z shows that the operating revenue per train mile upon the Iron Mountain during the year ending June 30, 1907, was \$2.17; for the year 1897, it was \$1.45; showing an increase of 50%.

The operating expenses for the same two years shows an increase

of 40%.

The net revenue per train mile shows an increase of 69%.

I do not believe that kind of a comparison of those two particular years is fair.

The statistics shown by that exhibit were taken from the annual report to the Interstate Commerce Commission for the year 1897, and in the opening statement of that report (On page 9) it has this to say:

"A review of statistics of operation since 1890 would disclose the fact that each year ending June 30th, from 1890 to 1893 inclusive, closed with an increase in net and gross earnings as compared with

the previous year.

The year 1893-1894, however, proved to be a disastrous one for railways, the gross earnings being less than \$147,000,000 and the net earnings \$50,000,000, than the corresponding items of the previous year.

The year 1894-1895 showed practically no recovery from the de-

pression of the previous year.

4630 The year 1895-1896 closed with an increase in gross earnings of \$74,000,000 and net earnings of \$27,000,000. this movement toward better conditions did not continue during the year covered by the present report, which as compared with 1896 shows again a decrease in gross earnings of \$28,000,000 and in net earnings of \$7,000,000.

It was not until June, 1897, that is to say, the last month of the twelve covered by this report that the railway earnings showed a healthy revival of commercial conditions. This fact indicates the character of the year covered by the present report and must be held in mind by one who endeavors to interpret the figures about to be

On the other hand, the testimony in this case shows that the year ending June 30, 1907, was one of the best in the history of the railroads.

Q. That is just about the poorest year that could be taken for a comparison of that sort?

A. It does not appear to be a fair comparison.

Right in connection with that, the annual report of the Missouri Pacific Railway for the calendar year ending December 31, 1897, which would cover part of the period covered by this Interstate Commerce Commission's report, has this to say:

"With the advent of 1897, a general improvement in business was predicted; and while this has been realized in some directions it would appear from facts and figures that the improved conditions were not of such a character as to proportionately benefit passenger

travel until the latter half of the year.

4631 The most practical explanation of this seems to be that the farming element, which constitutes a large percent of the travel of western roads, being dependent upon their produce did not experience the benefit of the improved conditions until after they had And a synopsis of the earnings for the realized upon their crops. year shows the entire gain to be for the last five months".

Now, that refers to the months of August and December, inclusive,

which would not be a part of this comparison.

Q. The years of that comparison end with June of the year mentioned?

A. Yes, sir. Q. Exhibit F-1, filed by the same witness, I believe, is a comparison of passenger statistics for the same years, is it not?

A. Exhibit F-1 shows a comparison of various traffic statisties for the year 1897, compared with the year 1907.

Q. That is years ending with June 30th, being the fiscal year? A. Yes, sir.

Q. State if that is a fair comparison for the periods?

A. The same criticism that may be made in connection with Exhibit Z would also apply to this. It compares two periods entirely different in their character; and in addition to that, so far as the passenger service on Exhibit F-1 is concerned, it gives no consideration to the change in revenue brought about by the two cent passenger fare.

Q. Mr. Johnson, those two years represent rather extreme con-

ditions of prosperity and depression, do they not?

A. Yes, sir.

4632 Mr. Wharton filed an Exhibit showing the results of operation on the Iron Mountain Railroad, based on what purports to be Judge Farrington's formula in a decision rendered in the case of the Southern Pacific R. R. vs. Bartine, reported in the 170 Fed. Rep. at page 725:

Now, Mr. Johnson, will you prepare and file a statement showing what would be the result in this case, under Judge Farrington's formula, as we interpret it, and file with it extracts from the opinion of Judge Farrington, upon which our interpretation is based?

A. I have prepared such an Exhibit.

Col. Moore: I will offer in evidence this statement.

The paper referred to is marked "Complainants' Exhibit 55. Exhibit 55 is in the words and figures following, to-wit:

For Exhibit 55, see Volume 8, page 5724.

4633 A. I would like to say in explanation of this Exhibit 55, that there was nothing in the case decided by Judge Farring-

ton relating to passenger business; it was a freight case.

In Exhibit G-1 the State shows the net earnings from intrastate freight ascertained under this method to be \$200,000; and then adds to that the net earnings from intrastate passenger traffic, ascertained under their formulas to have been \$134,000, showing the total net intrastate earnings to have been \$334,000 for the six months period.

In making this calculation on our Exhibit 55 we find the net earnings from intrastate freight to be \$140,000 and have added to that the net earnings from intrastate passenger traffic, ascertained on the

formulas outlined by the Railroads in filing their Exhibit 3.

The result is, that so far as the passenger service is concerned, the result will be upon two entirely different formulas. The difference in opinion is confined to the application of Judge Farrington's formula to the freight service.

Q. State what result is shown in the way of net earnings by the

formula you have filed?

A. Exhibit 55, net earnings freight, on intrastate business amounts to \$157,174.17. This is equal to 3.51% return upon the assessed valuation of the property in 1907; and 2.92% upon the assessed valuation of the property in 1909. 4634

The difference in opinion is confined to the application of

Judge Farrington's formula to the freight service.

Q. State what result is shown in the way of net earnings by the formula you have filed?

A: Exhibit 55, net earnings from all intrastate business amounts to \$157,174.17.

This is equal to 3.51% return upon the assessed value of the property in 1907; and 2.92% upon the assessed valuation of the property

Q. Have you prepared a statement showing what the net earnings of the Iron Mountain Railroad would be on the formulas presented in this case by the state, contained in the exhibits heretofore referred to, with such modifications in certain items of the sub-divisions of those formulas as the testimony introducted on the part of the compiainants in this case indicates should be made?

A. Yes, sir.

The paper referred to is marked "Complainant's Exhibit No. 56." Said Exhibit is in the words and figures following, to-wit:

For Exhibit 56, see Volume 8, page 5726.

4635 Have you prepared statements showing what the net earnings of the Iron Mountain would be, on the formulas presented in this case by the State, contained in the Exhibits heretofore referred to, with such modifications in certain items of the sub-divisions of those formulas as the testimony introduced on the part of the Complainants in this case indicates should be made?

A. Yes, sir.

Col. MOORE: I will offer in evidence the statement prepared by the witness.

The paper referred to is marked "Complainants' Exhibit 56. Exhibit 56 is in the words and figures following, to-wit:

For Exhibit 56, see Volume 8, page 5726.

4636 Q. I will ask you to make such explanation of those as may be necessary to enable the changes made by you in the formula to be clearly understood.

A. Exhibit 56 starts out with the item of "Maintenance of Equip-

ment-Locomotives."

In dividing this expense between yard and local and through trains we have adopted the basis outlined in the state's exhibit.

In dividing the proporton chargeable to yard locomotves, instead of dividing that between local trains and through trains on the basis of the number of cars handled, we have divided it between intrastate and interstate freight on the basis of the number of tons handled and we have included all of the trans-state freight in the interstate.

The next sub-division is "Freight cars repairs (B)".

This item has been divided between "Stopping and Starting" "Terminal Handling" and "Other expenses," upon the percentages suggested in Mr. Rosing's testimony, making a change of about 20% in the charge to stopping and starting and terminal handling as compared with the percentage used by the state.

In dividing the amount chargeable to starting and stopping, between local trains and through trains, we have multiplied the car miles on local trains by eight instead of by four, as was done in the

state exhibit K.

The terminal expense and the other expenses under freight 4637 car repairs have been divided on the basis outlined by the state.

The next item "c" is "Supervision in General" under "Maintenance of Equipment"; and we have divided this account between the local trains and the through trains, intrastate and interstate traffic, on the basis of the two charges as was done by the state in their Exhibit.

The next item, number two, is "Traffic Expenses":

We have adopted in this case the method used by the state and make this division between intrastate and interstate as they did, by using the gross earnings basis.

The next item is "Transportation expenses."

The first sub-division "a" is, "Station expenses" and we have in this case divided the expense between intrastate and interstate on the basis of the number of tons handled, allowing two handlings for state freight and adding to the interstate tons, 10%.

This is done on the assumption that a certain percentage of the

interstate and trans-state freight may have more than one handling in the state of Arkansas.

In this division we have followed the state's method as shown by

their exhibit Y, with the exception of adding this 10%. Sub-divison "b" s "Yard and terminal expenses":

We have divided this expense between state and interstate traffic on the basis of the number of tons handled using exactly the same percentages as were used in dividing the repairs to yard 4638 locomotives, under "Maintenance of Equipment."

This division results in an equal charge under yard and terminal

expense to all interstate and trans-state freight.

We have made no change in the method of dividing sub-division "e" fuel and locomotive expense; sub-division "d" engine house expenses; sub-division "E" road engine men and train men; subdivision "f" other train expenses; and sub-division "g" loss and damage to freight.

In each case we have adopted the state's method in apportioning

these expenses between local trains and through trains.

Under sub-division "h", supervision and general, we have again adopted the state's method, using the direct charges ascertained under these various formulas.

The next division is "Maintenance of way and structures", "General expenses." Both of those items have been divided between local trains and through trains and intrastate and interstate, traffic on the basis of the direct charges ascertained under each of the other expense accounts.

This method follows the metod adopted by the state insofar as general expense is concerned and places the cost of maintenance of

way and structures on a parity with that item.

The next item is "Total train cost": We have divided the total cost of local trains and the total cost of through trains between state and interstate on the basis of the number of state and interstate ton miles on the local and through trains

as shown by the state exhibit I instead of adjusting that October

percentage to the six months figures.

Sub-division 7 which includes miscellaneous revenue, taxes, rentals, hire of equipment, and value of property, have all been divided on the basis outlined by the state, reaching the same result, with the addition of the assessed value of the property under the assess-

The next page of this exhibit is a summary of the foregoing figures and agrees in form with state exhibit J.

The next page deals with the passenger service:

The first item under the passenger head is "Maintenance of Equipment-Locomotives."

We have followed the state's method there using the percentages that were obtained from a recheck of their car mile figures, and that showed that the state percentage of coach mileage was 56.77 percent of the total mileage, while in our recheck we found it to be 59.38

The next item "b" is "Passenger train cars": We have divided

this expense between coach, mail and express on the car mile basis as adopted by the state, with this change: that to the coach mileage we have added 100 percent, to take care of the extra cost of maintaining coaches and chair cars as compared with baggage and express cars, and to the mail car mileage we have added 15% to take care of the excess cost of the mail car.

4640 This was done in accordance with the testimony offered by

Mr. Rosing.

Sub-division "c" Supervision in General has been divided on the

basis outlined by the state, using the revised amounts.

"Traffic Expenses" has been divided between intrastate and interstate on the basis of the gross earnings of each class of traffic, omitting the earnings from mail, and express, and other miscellaneous passenger revenue.

The next heading is "Transportation expenses":

The first sub-division is "Station expenses". This item has been divided on the basis outlined by the state, and the same result is obtained.

We have made no change in the state's method of sub-dividing sub-division "c" yard and train expenses, sub-division "d" loss and damage to baggage; sub-division "e" Supervision and General, using their basis in each case.

The next sub-division is "Maintenance of way and structures": We have divided this item between each class of traffic upon the basis of the direct charges under maintenance of equipment and transportation.

This basis is similar to that adopted by the state for general

expenses.

Under "General Expenses" we have deducted from the total, \$160.767, the expense of train auditors, which amounted to 4641 \$44,872; and have divided the balance of the general ex-

penses between each class of service, on the basis of the direct expenses, using the same percentages that were used in dividing maintenance of way and structures.

The expense of train auditors, sub-division "b" has been divided between intrastate and interstate on the basis of the number of passengers carried.

I do not remember what witness it was who testified to that formula but I believe that basis has been mentioned for this item.

Q. You testified to it yourself, that the train auditors should not be included in and divided upon the same basis as general expenses and you gave as a reason that they deal with passengers and not with the class of service that is covered in the division of general expenses.

I will ask you now, assuming for the present purpose that this segregation scheme adopted by the state for the separation as shown on these exhibits is a proper one, then how should that item of ex-

pense "Train auditors" be divided?

A. If it is necessary to divide the individual item of train auditors' expense between state and interstate business, I believe the number of passengers handled is the best unit that could be obtained.

The expense itself is entirely different in its nature from that of train expense; has nothing to do with the movement of the train or the car; nor has it anything to do with the length of haul of the passenger. And so far as the duties of the train

auditors are concerned, I should say that the greater part of his time was devoted to the short haul passenger and the cash fare collection brought about by that short haul passenger.

Q. Proceed.

A. The next division is a division of the cost of the coach and

Pullman service between intrastate and interstate business:

The method of getting at the passenger miles in coaches is shown at the bottom of this page in the note. The note itself shows that during the month of October, 1907, there were 12,566,398 passenger miles.

The company records show that in October, 1907, there were

2,188,495 passenger miles carried in Pullman cars,

On the state's assumption that 25% per cent of the Pullman passenger car miles is intrastate, the division of the passenger miles for

October, 1907, would be as shown by that last paragraph.

We have used that basis in our sub-division 6 and divided the coach expense upon the percentages based upon the passenger miles in coaches; and the cost of Pullman service has been divided arbitrarily 25% to state and 75% to interstate, as was done in the

To my mind there is this objection to that method of division: that is, that the 2,188,495 passenger miles in Pullman cars repre-

sents the passengers actually carried in the cars. While the 12,566,398 passenger miles which represents the total for

the month of October, is the record as taken from the ticket sales and cash fare collections; and it has that same element of lap-overs that appears in the state Exhibit I and is used by them.

I do not believe the lap-overs in passenger service would be as

large as the lap-overs in freight. But that difference is there.
Sub-division 7 "Miscellaneous Revenue and dining car deficit"; and sub-division 8, "Taxes, rentals, hire of equipment and value of property" have been divided on the basis outlined in the state's exhibits with the addition of the assessed valuation of 1909.

The next page of Exhibit 56 is a summary of the passenger expense divided between coach cars, Pullman cars, state and interstate, mail and express business, and corresponds with the state's

The next page of Exhibit 56 shows the gross revenue, total operating expenses and the net earnings obtained as a result of these

various approximations.

It also shows the assessed value of the property in 1907 and the percentage of return or the percentage of net earnings to valuation; and the assessed value of the property under the assessment of 1909 with the percentage of net earnings to valuation upon that basis.

It shows the division of freight, passenger, to total intra-

state and total interstate.

Q. State what those per cents are as shown there?

A. Under this basis the percentage of return under intrastate freight traffic, under the assessment of 1907, would have been 2.76%. It would have been 2.29% on the assessment of 1909.

Interstate freight shows a return of 11.1% per cent upon the 1907

valuation and 9.22% upon the 1909 valuation.

The intrastate passenger shows a deficit or a red ink figure of .14%

in 1907 and on the 1909 valuation it is .12%.

The interstate passenger is .30% on the 1907 valuation—that is a red ink or deficit figure. And a deficit of .21% on the 1909 valuation.

The total intrastate shows a return of 1.12% on the 1907 valua-

tion and .93% on the 1909 valuation.

The total interstate business shows a return of 9.72% on the 1907

valuation and 8.08% upon the 1909 valuation.

While the return upon the total business is the same as that shown in the other statements, 7.5% on the 1907 valuation and 6.23% on the 1909 valuation.

Q. That is on the basis of the division adopted by the state, is it, that is with the modifications you have pointed out in your

testimony?

4646

A. Yes, sir.

Q. And without any allowance for extra expense as between intrastate and interstate except such as such claims that were made under arbitrary allowances and were found in the various sub-divisions of their exhibits and the modifications made by you.

A. That is right. There is no additional allowance to the state

freight or state passenger upon the local train.

Q. My purpose in introducing this exhibit with which you have just been dealing is to show to what extent changes in the bases

adopted in the sub-divisions will make in the result:

I want to ask you if this scheme of division adopted by the state is not one that can be, by a few changes adapted by a person making the figures under it to meet almost any end he has in view as to the results to be obtained:

I am not asking that with a view of saying that it has been used in this case for any improper purpose. That is not a question for you to pass upon. But I want to ask you if it is not a scheme easily changed by the person making it to reach any desired result?

A. Any change that might be made in the arbitraries under maintenance of way and maintenance of equipment or under transportation, would bring about a corresponding change in the results shown, and in the percentage of return upon the valuation of the property. A reduction might bring about an increase in the percentage of return; or an addition to these arbitraries would bring about a reduction.

A change in the method of dividing any particular item

might have a material effect upon the total.

I can see where under the passenger service in dividing the yard and train expenses, which includes this cleaning and casualty account, upon a revenue basis for instance would make a very sub-

stantial loss in the state passenger business. Any change in the

method would change, of course, the results.

Q. Mr. Roth has testified that all cotton at compress points and all grain at milling points is charged in these statistics with two handlings, or, rather, it is charged as two tons, a ton in and a ton out: you heard his testimony, did you not?

A. Yes, sir.

Q. If that is correct I want you to take sub-division "a" of transportation expenses, which deals with station expenses (page 4 Exhibit 56) and state if the interstate tons included in the division there between intrastate and interstate does not double all the cotton and all the grain at milling points in view of the testimony of Mr. Roth. That is to say, does it provide for them, count that double, in other words, state what effect that would have?

A. If cotton into the concentrating points, into the compress, is treated as one ton and then when shipped out is treated as another ton it means that every ton of cotton in the interstate tonnage is shown in this item as two tons. And on the basis of the number of tons handled would be charged with two terminal handlings.

Q. How about grain?

4647 A. The same is true of the grain milled in transit.

Q. I overlooked calling your attention to the contention of the state in regard to the effect of the increased rates on passenger revenue:

Have you prepared an exhibit showing that? I wish you would file it with any explanation you wish to make.

A. I have.

Col. Moore: I offer in evidence this exhibit.

The exhibit referred to is marked "Complainant's Exhibit 57."

Said exhibit is in the words and figures following to-wit:

For Exhibit 57, see Volume 8 page 5740.

4648 A. I think Mr. Kimbell was asked to compile a statement on the assumption that there would be an increase of 35% in the revenue per passenger mile for intrastate traffic without any increase in the interstate passenger traffic.

This statement is one showing the passenger miles and passenger revenue upon both state and interstate business for the six months ending December 31, 1907; and for the six months ending De-

cember 31, 1909.

In 1907, the passenger rates were upon the basis of two cents and in 1909 on the basis of three cents, except in competitive territory where it was necessary to meet the 21/2 cent rate.

This statement shows that the average revenue per passenger mile

for intrastate business during 1907, was 1.93 cents.

The average revenue per passenger per mile in intrastate business for the six months ending December 31, 1909, was 2.63 cents. The percentage of increase in 1909 over 1907 is 36.2%.

By applying to the 1909 passenger miles the average rate of 2 cents per mile, which was in force during 1907, the average revenue per passenger per mile would have been 1.981; and the percentage or increase in 1909 over the two cents basis would have been 32.8%. The average revenue as shown by this statement, on interstate business for the six months ending December 31, 1907, was 1.865.

And the average revenue for the six months ending December 31, 1907, was 1.865.

cember 31, 1909 was 2,258.

The percentage of increase in 1909 over 1907 was 21.1%.

This shows that there was an increase in the revenue from interstate business when the state rate was increased to three cents.

4650 Cross-examination of Frank Nay.

By Judge J. M. HILL:

Q. There seems to be a question brought into this case of the accountant versus the operator, as to who should allocate the expenses:

I see you have expressed some views about it: I do not know really whether there is a difference between you and the other gen-

tlemen on that subject or not:

I believe Mr. Ludlam testified that he did not think the operating man was the proper man to design a system of accounting, or to allocate the expenses; but that the accounting officer should inform himself from the operating man of the actual conditions, and plan the division and proper allocation of expenses:

Does that differ particularly from your views of it?

A. Well, as you have stated it, there is not a very substantial difference. What I attempted to say was, that no man—accountant or other man—can determine the allocation of the expenses, without knowledge of the local conditions.

If the accounting officer, who is usually located at some central point, has not definite knowledge of the local conditions, the local operating man who is on the ground and has that knowledge, can

determine better than anyone without the knowledge, where the expense should go. But the accounting officer by possessing himself of that knowledge is then the one to determine.

Q. I think that is about Mr. Ludlam's views as I remember it.

Of course, no one could contend that the accounting officer would know all about the railroad without informing himself any more than the accounting man could devise a cost system for a manufacturing concern without informing himself.

A. I may be mistaken, but my criticism of Mr. Ludlam's testimony was that in one place he stated he would not consult the

operating officials.

Q. I think you will find you are mistaken. I think he did not say that but said it was his buty to consult them and inform himself.

Col. Moore: What he said was that the operating man was the last man to determine how the expense should be finally allocated.

Judge Hill: Well, there seems to be practically no difference

between you as I understand the testimony.

A. I think there is no substantial difference, Judge Hill, in the

way you put your question. But the way you put it was somewhat different from my understanding of Mr. Ludlam's testimony. As you put it, I think there is practically no difference.

c. Is it not a fact that practically all the expenses of the railroad are now being classified under the rules of the Interstate 4652 Commerce Commission and proceed in accordance to the rules

promulgated by them?

Among the primary accounts or divisions of expenses, yes.

Q. What do you mean by "primary accounts"?

A. I mean the 116 different accounts prescribed by the Interstate Commerce Commission, which refer to superintendence and to

ballast, rails, and so on. Those various accounts.

Those are items, Judge, which may be definitely determined. That is, you can lay down a classification, as the Interstate Commerce Commission has done, which shall prescribe with a large degree of accuracy the very items which go into each account. Now what I understood what was in question on this matter of getting the judgment of the operating official and of the accounting official was those expenses which could not be so definitely determined as those covered by this classification does, for example, the difference between passenger and freight, state and interstate.

The Interstate Commerce Commission has not undertaken to prescribe any classification as between passenger and freight or as

between state and interstate.

There is where the matter of judgment comes in; and that class of expenses requires actual knowledge of local conditions, in order

to determine that question.

Now in this classification of the Interstate Commerce Commission is rails: it is easy to say the rails shall go to rail; ties to ties; ballast to ballast; track labor to track labor; bridges to bridges, and so on.

But when it comes to the division of those bridges and ties 4653 to freight and passenger, state and interstate, that is the thing which requires the knowledge of the local conditions, because

it is a matter of judgment.

Q. When the Interstate Commerce Commission classification began there were many conferences between the accounting officials and the operating officials and the statistician of the Interstate Commerce Commission, weren't there?

A. Yes, sir.

Q. Much objection was raised by the railroad accounting officials and operating officials as to the ability to work out such classifica-

tions as had been worked out, wasn't there?

A. I don't think I would say that—and I was on the committee of 25 from the beginning, from 1906, which worked closely with the Interstate Commerce Commission during the entire formation of that classification; attended nearly every meeting and am still on the committee. I would not say there was a feeling that such a classification could not be worked out. There was a feeling that such a classification would not be satisfactory to everybody.

Q. I expect that would express the idea better than what I said.

Not satisfactory in what sense, Mr. Nay?

A. In the sense that some of us had certain ideas due to our training and experience, that we were not willing to give up.

As for example, the joint facility account. That I think was one of the things that caused the greatest amount of

discussion, more than anything else.

Some had the idea we should have separate joint facilities account as we have now. Others thought we should have nothing of the kind, and the debits and credits should be mixed in with all the

other expenses.

Q. It was not a simple proposition, then, to charge rail to rail account and bridge to bridge account and ties to tie account and so

on, was it?

A. There was no trouble over accounts of that character. The trouble came over such things as joint facility accounts, depreciation, insurance, which might be distributed over all five headings or might be put in "General Expenses".

Q. Wasn't there quite a controversy over the switching proposition, too?

A. Do you refer to switching expenses or switching revenue? Q. Switching expenses, I think it was, but I am not clear.

know I have heard something of that and my recollection is it was switching expenses?

A. There was some controversy but that was not so marked as these others. It was not so marked as to fix itself in my mind like these other things I speak of.

Q. Has the classification of accounts worked out by Professor Adams been satisfactory to the railroads?

A. Fairly so.

4655 Q. I think one of these operating gentlemen here the other day testified it was very unsatisfactory?

A. As I stated, it has not been satisfactory to everybody. When I said "fairly so" I meant to infer there were, of course, exceptions.

Q. Wasn't there quite an issue between capital charges and expense charges?

A. Yes, sir.

Q. Wasn't there much dissatisfaction felt over the ruling of the statistician on that, by the operating men?

A. Only as to certain items and of course the item of abandoned property is one that has caused a great deal of dissatisfaction.

Q. The question of replacements has also, hasn't it?

A. I don't know just what you mean.

Q. I mean using the technical term. Suppose a bridge is burned down and another is built in its place, don't you call that "replacement"? What is your technical term for carrying that expense into your accounts? Or suppose a steel bridge is put in in lieu of a wooden one and so on?

A. That is usually considered under the term of "Renewals."

Q. Probably the word "renewal" is what I should have used instead of "replacement". Of course, I don't know anything about your technique.

A. I am not quibbling over words but I simply want to understand your idea, Judge. 4656

Q. That is the idea I intended to convey.

A. No, sir, I don't know that. There was dissatisfaction on the part of some whose ideas were different from what was finally

Q. That puts quite a rein on the operating man, doesn't it, as to where his expenses shall go or as to his determination of the ex-

pense, as to the money charged for these things.

A. Now, again, without appearing to quibble about words, what did you mean by "the operating man"? Do you mean the President? Q. What do you mean by "operating man"? You have used that term?

A. Ordinarily the operating man means the subordinate operating official, from general manager down, general superintendent or superintendent.

Q. That is the sense in which I mean it.

A. In these days the president is frequently spoken of as the

operating head while the financial head may be another man,

Q. I mean the man directing the operating forces, whether he is called general manager, general superintendent, or superintendent. I mean the man who is directing the operation. That is the man I refer to.

A. I think I can make my answer clear.

I do not think the rules promulgated by the Interstate Commerce Commission have put much of a check on the subordinate operating man. They may have put a check on the operating man who

4657directs the affairs of the company, the man who ranks as president or vice-president in charge of operation. The man who had authority to give instructions to the accounting department.

But to those who were subordinate to the accounting department, I

do not think there is much difference now than formerly.

Q. How about the general manager? Do you class him as subordinate to the accounting department?

A. On most roads. On some roads the General Manager appoints

the accounting officer and instructs him as to the duties.

Q. The point is this: Since these rules have been promulgated, it is more difficult to put a given item into capital account which should go into expense account than it was before these rules were promulgated? Is not that a fact?

A. Not unless it is an item which does not properly belong in

expenses or in capital account.

Q. I do not quite understand your answer, Mr. Nay?

A. What I mean is this: an item which properly belongs to the capital account or to operating expense account, formerly went there just as truly as it does today, barring cases which occur in every class of business, where there are men who want to manipulate the accounts.

Every railroad man is not a saint. I think they average up about the same as other men. But for such men, who had 4658such inclination, there is a check on them today which did not exist before.

But as to the ordinary course of railroad affairs, the men who wanted to do what is right and intended to do what is right, there

is no check now that did not exist formerly.

Q. That would be an opinion as to what was right. A general manager might think it was entirely proper to run a lot of those charges into capital account and be just as honest as you are who would think they should not go into capital account. It might be just a difference of opinion. That man might be just as honest as you and as sincere as you and yet think that the capital account was the proper place for it.

A. Yes, sir, I do not mean to impute any wrong motive where

none existed.

Q. In other words, there was a freer rein then than now; isn't that true?

A. Yes, sir, that is true.

Q. I think it is in the testimony of Mr. Kimbell how the capital account was formerly made up by the railroads before these rules went into effect.

I do not think there was anything wrong about it, but the managers of his road thought that that was proper and wanted it done that way. But now under these rules there is a check upon it?

A. Yes, sir. Q. These rules are largely the work of Professor Henry C. 4659 Adams with the aid and advice of many accounting officials of the various railroads and also of the operating men; isn't that a fact?

A. Yes, sir, and I might say that Professor Adams said when he started these rules, it was his idea to get the best American practice

and that phrase was used very frequently.

Q. I think he had 25 of you accounting officers with him?

A. Yes, sir.

Q. And he also had many operating men with him in consultation?

A. Yes, sir.

Q. Professor Adams himself never had any operating experience?

A. Not that I know of.

Q. He was the Professor of economics or some chair of that kind in a college, was he not?

A. Yes, sir.

Q. He was a statistician and accountant?

A. Yes, sir.

Q. I will call your attention to the statement you made when you had read the testimony of the state's accountant and he said they would present actual facts as opposed to theories: I will ask you if it is not a fact he stated he would present the actual facts wherever

possible; and when not possible they would use the factor most nearly approaching the actual facts. Isn't that what was stated most frequently in Mr. Wharton's testimony?

I think possibly there is a little difference in the way you stated and the way he stated it.

In other words, here is the point: Those things that were actually

ascertainable they attempted to get; and those they could not, they attempted (whether successfully or not is another question) to get the factor most nearly approaching the actual facts. Is not that the standpoint he gave?

A. I have not looked at that for a few days but my recollection

is just as I have stated it here.

Q. Here is probably a fair statement that occurs many places in the testimony.

Mr. Wharton said in answer to the question:

"Do you mean the plan outlined in these exhibits are not based upon assumptions?

A. Yes, based upon assumptions but each assumption is treated

separately and not as a whole.

- Q. Are the divisions you have made here based on any knowledge and information you may have had in the actual operation of the railroad?
- A. No, sir, I have no knowledge of the actual operations of the railroad.
- Q. Is it based upon information you obtained from reading the testimony in this case?

A. Quite largely.

Q. And you have taken that as the foundation for the programme that is outlined or the method of division that is outlined in your exhibits?

A. Quite generally, yes, sir."

And further on he stated he obtained all the information

he could from operating men.

Don't you recognize and do not the exhibits show (whether successfully or not we are not discussing) that there was an attempt made to get the actual facts where they could, or to use the factor most nearly approximating the true conditions: is not that the way you understood the exhibits?

A. As I say, Judge Hill, my answer to the question regarding

this matter.

4661

"I have read the testimony regarding these exhibits, and as I recall it the opening statement was that they would present actual

facts as opposed to theory."

Now that is a matter of recollection, either by Mr. Ludlam or by Mr. Wharton. And as you say the term "actual facts" perhaps has a modification all through. But I refer in my testimony to that opening statement.

Q. Taking it as a whole, you understood what was meant, did you not, that they intended to take the actual facts were obtainable, and get the maintenance of way and maintenance of equipment and take the factor most nearly approaching the actual facts. Was not that the way you understood the state exhibits?

A. I understood it, as I stated, that there were no actual facts

presented in the state exhibits.

Q. They had wages and fuel and loss and damage?

A. That is only for one month. Those are not actual facts for six months.

4663

4662 And loss and damage were not actual facts for one month, but only a statement for one month.

Q. That is what you mean by your statement here, that you do not find any actual facts?

A. Yes, sir.

Q. And then this is a criticism of the method?

The point I am making, is that you understood from these exhibits what the effort was. You did not understand they were trying to get actual facts as to maintenance of way?

A. Here is what I understood:

In my direct testimony, in my opening statement I frankly said it was an impossibility to actually divide operating expenses between state and interstate traffic.

And Mr. Ludlam in his opening statement stated that I set up a "snow man" and knocked him down. And then followed that up by

stating that he proposed to show actual facts.

Now I understood that the state witnesses as opposed to the frank statement I had made, that the expenses could not be actually divided, but that we were making the best approximation we could, were now attempting to make an actual division based upon actual facts.

That is the way I understood it.

Q. That is the way you understood it?

A. Yes, sir.

Q. Well, the testimony speaks for itself. I just wanted to

get your understanding.

In criticising this general plan of dividing between local and through you stated, as I remember it, that after they had got the division between local and through trains as to the proportion of interstate and intrastate freight carried on each of those freight trains, they still had the problem before them as to state and interstate as they had before them when they began:

Is that a correct summary of what you said? A. Yes, sir, that is substantially what I said.

Q. That is the way I remembered it? A. Yes, that is correct, substantially.

Q. You know Mr. Doddridge, I presume? A. Yes, sir.

Q. He was put on as a witness in this case on behalf of the railroads in their case in chief. He testified he had been general manager of both these railroads and had served as advisor to counsel in this case and in the Missouri Rate Case.

He testified at page 59 vol. 2 as follows:

"Q. Is not the only difference in cost of the intrastate and interstate freight carried on the same train, the one of the extra terminals? A. There is no difference in the cost of one kind of freight or another kind of freight, arising from a distinction in the terms "state" or "interstate." If the conditions are the same there would be no difference in the cost.

Q. Take freight carried on the same train? A. Well, I say, if the conditions are the same; that is, the kind of freight and all of the other elements that enter into it, there would be no difference

arising from the terms "state" or "interstate".

But the conditions must be the same to say that there 4664 would be no difference in the cost, because there might be a difference in the conditions. The character of the freight, the weight, and other things.

Q. Take it, the same kind of freight and of the same character, carried on the same train, where is the difference except in the ter-

minals? A. There would be no difference in the train cost.

Q. I want to read you your testimony in the Frisco Case.

to read this statement made in answer to a question:

"So far as the particular freight is concerned, carried on those particular trains, there would be no greater cost in transportation for interstate freight than state freight, except the terminal charge.

In order to ascertain the results correctly, you would have to take into consideration the amount of state freight that is carried upon that train, as applied to the total state freight carried on the other

In other words, what I mean to say is, we have to take into consideration all the trains and find out what relation the state freight bears to the whole".

Then he says that is a correct analysis. Do you agree with Mr.

Doddridge in that?

A. Yes, sir, substantially.

He says all the conditions must be the same, in order for the cost to be the same.

The division on the ton mile basis at the end for the local trains puts carload and less than carload all together and assumes it costs the same per ton mile to transport a ton of coal as it does to transport a ton of show cases, for instance.

So the conditions are not the same, as Mr. Doddridge points out, and, therefore, the ton mile basis could not be applied.

4665 Q. You are assuming there would be a difference in the character of the state and interstate traffic carried on local trains or carried on through trains? A. Yes, sir.

Q. I believe I can safely say, Mr. Nay, that in this case there have been a great many witnesses who have testified that that traffic goes hand in hand and that there is no substantial difference between them. I think Mr. Doddridge is one who testified to that, probably preceding this portion I have read to you from his testimony:

In view of that, is it not true that if that freight is of the same character there is no difference in the cost other than extra terminal, and when you get the proportion that is carried on each class of

trains you have worked out your problem?

A. I think it would be remarkable, Judge Hill, if the character of the tonnage was the same on both state and interstate; and if all the conditions surrounding it would be the same.

Q. That is a disagreement with this other testimony to which 1 have referred.

But assume that to be true, that the traffic does go-as the other

witnesses have expressed it-hand in hand and is relatively about the same thing on each of the trains, then is not the conclusion irresistible if that be true it is just a question of the terminal and the proportion of freight on each class of train?

Col. Moore: Do you mean to imply in that question that 4666 the traffic is the same and the conditions the same or that the traffic alone is the same?

JUDGE HILL: I speak of traffic alone, in the way I put my question?

A. Well, of course, I agree with Mr. Doddridge that if proper allowance has been made for terminals so you have under the direct train costs, that is, cost of transportation, which would be the wages of the train crews, the fuel used in the locomotives, and the train supplies and expenses; and the character of the interstate freight is just the same as the character of the state freight, certainly the cost of transporting a ton of state freight one mile, under those conditions, as regards this particular expense, would be no more than of the interstate freight.

But those conditions would have to be all the same and we would have to assume a proper allowance had been made for terminals, so

what was local in there was strictly train cost.

But, as I have pointed out in here (indicating testimony) the figure left in there is not the train cost. Because maintenance of way and a large number of items, perhaps 90% in my judgment, are items which are not train cost.

Q. This is not speaking just of train cost, but is speaking of the

whole cost.

There is not any difference in maintenance of way, whether a ton of freight is being carried as a state ton or as an interstate ton, is there, as to its effect on that expense account?

4667 A. No, sir, the tonnage has little to do with maintenance

of way.

Maintenance of way expenses are caused by deterioration and the necessity of renewal from time to time, because they have lived their life—the bridges, ties, rails and so on.

So the tonnage has very little to do with maintenance of way

expenses.

And the tonnage does not govern maintenance of equipment

expenses.

What I say is that the strictly train expenses, wages of the train crews, fuel and so on, that come under the head of strictly train expenses, excluding maintenance of way and maintenance of equipment and some items of transportation expenses, are the ones where the cost would be the same.

Q. These maintenance of way expenses were all kept up in order to haul this tonnage, of course. They are not kept up for ornamentation or philanthropy or anything of that kind?

A. No, sir, they are kept up as necessities.

Q. You have discussed at a good deal of length the question of lap-overs.

You pointed out the objections to using October as a representative month on account of the lap-overs that would exist, going into the following month and were doubtful whether the lap-overs from the preceding month would be equal to that: I believe that is about the

substance of your objection on that score to the use of that

4668 month, is it not?

A. That is a part of the objection.

Q. I say, on that score?

A. Yes, sir, on the score of lap-overs.

Of course, I object, Judge Hill, to taking the largest month as representative, irrespective of lap-overs.

Q. I am going to discuss that with you later. But I am speaking

of the lap-overs now.

For that to be an effective objection to it, the lap-overs would have to exist in one class of traffic that did not exist in the other. You would have to assume there would be more lap-overs of intrastate or interstate, for instance, or for lap-overs in the intrastate than in the

If the two classes of traffic went hand in hand, there would be as much lap-over in the interstate as in the intrastate, wouldn't

A. It would be an accident, I think, if there should be.

In fact, Judge Hill, if I were compiling figures where I wanted to present an actual statement, I would investigate the lap-overs at the beginning of the month and at the end of the month; and know what they were, or else I would compute the figures for the entire six months.

But on the lap-over questions it seems to me it is up to the man who originally compiled the figures to satisfy himself that the lapovers did offset each other and offset each other in the two classes of business, also. Otherwise their figures would wrong.

4669 Q. I am putting you this proposition: there is much evidence aere that these two classes of traffic move along hand in hand, a car of coal in the intrastate and a car of coal in the interstate, in their proper proportions. A car of lumber intrastate and a car of lumber interstate, and so on. And merchandise probably more nearly so than with the others.

With these classes of freight moving hand in hand, they move

along together at all times.

Now, if this question of lap-overs should affect it there would have to be a difference in the relative movement of the two, wouldn't

A. If I understand your question, it is supposing 15% of the total traffic was intrastate traffic during the month of October; that 15% of the lap-overs from September into October would be intrastate; and at the end of the month 15% of the lap-overs from October into November would be intrastate?

Q. No, that was not my question. But that would illustrate the

point, probably.

A. I am trying to see if I understand the question.

Q. The point is this: Suppose the intrastate traffic is 15% and the interstate traffic is 85%: the testimony is that that 15% and that 85% would move along coincidently:

Now say there were 15% of lap-overs from one month into the other, would not that 10% of lap-overs reach equally into the 85%

and the 15% representative of the two classes of traffic?

A. It might or it might not.

Q. There would have to be a disturbance of that 15% or of that 85%, for the 10% of lap-overs to affect the proposition, wouldn't there?

Col. Moore: You are assuming in that question that the 15%

state and the 85% interstate would move coincidently:

Do you mean in regard to delays, if one was delayed the other would be delayed; and if one did not get into the auditor's accounts the other did not get into the auditor's accounts?

Judge HILL: That is just one of the details.

Col. Moore: I disagree with you. There is no evidence on that proposition.

Judge Hill: I am assuming that the state and interstate traffic

moved coincidently.

Col. Moore: You cannot assume that on any evidence here so far as lap-overs are concerned.

Judge HILL: I am simply trying to make clear my understanding

of the evidence. There is no use arguing it here.

A. I am not positive now, Judge Hill, because in order for these percentages to be of value, supposing every other condition has been met outside of the lap-overs and that they are correct in every other respect except the lap-overs: In order for them to be of value, considering the lap-overs it would be necessary not only for the state and interstate traffic to move coincidently, as you have said, or be

delayed coincidently—if there was a congesteion, but it would 4671 be necessary for them to move coincidently on local and

through trains.

That is to say, if the traffic is delayed traffic, that moves on through trains, it must be delayed in the same proportion as the traffic that moves on the local trains, because only the traffic on local trains has been computed and the traffic on through trains has been arrived at by deduction.

Q. If you will let me interrupt you there, Mr. Nay, I think we can

clear up one phase of that a little:

I do not understand this lap-over proposition is one of delay, necessarily. That question of delay might enter into it. It is freight that gets onto the train too late to finish its journey in that month, in the performance of their work.

A. I am familiar with the practical conditions since 1883, when I

started with the Missouri Pacific System.

Q. We will discuss the detail later: I am giving you only the broad proposition now, but I will give you full opportunity later to discuss the detail.

In the lap-over it is a question of not finishing the movement, no

matter how well it may move, as well as a question of delay?

A. A shipment may move forward expeditiously and not be delayed at all and still form a part of the lap-overs. But the delays

Have you understood me that delays alone caused lap-overs? Q. I rather understood you that the delay proposition was 4672

the only one that caused lap-overs and I want to call your attention to the fact that that was not the only feature of these lap-

A. Oh, no, not at all.

I still feel that delays must be more in October than in almost any other month of the year, because the business is heaviest in October.

Q. Is not that lap-over proposition existent in the six months

period, also?

A. Yes, sir, but as I explained in my direct examination it is a much smaller proportion compared with a six months' business than with a one month's business.

Suppose you take the six months from July to December, the lapover from June into July is just the same. Whether you consider that as a six months' period or whether you consider the one month

Suppose 10% of a month's business is lap-over. That is 10% of the business of one month, but now to take it for six months of lap-overs instead of being 10% you have for this one month say 1/6 which would be 1 2/3% of the total.

Q. It changes the divisor and lessens the degree of the lap-over?

Q. But the lap-over is still there, for any given period?

A. Oh, yes, there is no question about that.

4673 But, as I have said, when this question of lap-overs is applied to six months or one year, the effect is lessened, and if you apply it to one month it may distort the figures very largely.

Q. Suppose you are taking the six months to represent a six year period, would not the same proportion hold good there as if you took one month to represent the six months' period?

In other words, it would be as far from representing the actual facts, with six months representing six years than with one month representing six months, wouldn't it?

A. I suppose that would be true. I never figured an a six years' proposition.

My own personal opinion is, that a year's business should be taken, because there are conditions in each month of the year, and in each portion of the year, that do not exist in other portions of the year.

The six months ending December 31st in the southwest are the most prosperous six months. It is the period of the year when net earnings are greater than in the other six months of the year.

Q. You do not think it would be fair to take the last six months of

the year to be representative of the whole twelve months?

A. I think it is not fair to this extent; that the net earnings during the six months will be greater in proportion than they will for

4674 Col. Moore:

Q. For which six months?

th. For the six months ending December 31, 1907, or any six months ending in December, the net earnings will be greater for the

six months ending in June.

So it is unfair to the railroads. The railroad side of the case would make a better showing—and by better showing in this instance I mean a less proportion of net earnings—a better showing for this case—than by using the last six months of the year.

Q. You would not think the six months representative? A. No, sir, not representative of the year's business.

Q. Would you consider that one year would be sufficiently long a period to wipe out the lap-overs?

A. Well, it is a long enough period to make the amount of lapovers what we called in the Missouri Case "a negligible quantity".

What I mean to say is, Judge Hill, if the lap-overs are 12 per cent of a month's business they are only one per cent of a year's business: that is the point.

Q. You have objected a good deal in your direct examination to the use of one month as representative of a six months period, or of a years period, as testing state and interstate results:

You do not believe it is fairly representative for that purpose, as I

understand you?

A. No, sir, I do not.

Q. I want to read you the testimony the railroads brought out in this case while Mr. Kimbell was on the stand. Mr. Moore asked these questions and the answers are given by Mr.

Kimbell:

"Q. Mr. Kimbell, did the operating officers of the St. Louis Southwestern Railway Company make a test at any time after this litigation was instituted, for the purpose of ascertaining the relative cost of conducting state and interstate transportation? If so, I wish you would state what was done in that respect? A. A test of that kind was made under my direction.

Q. What period did it cover? A. The month of October, 1909. The temporary injunction was granted in St. Paul on September 3, and the month of October was selected for the purpose of making this test, on account of it being the first full month following the injunction. October is rather a heavy month, but for a test of this kind, in my judgment, it fairly represents the general conditions.

Q. Would it represent, fairly, a year's business? A. I should say so. It would represent relatively, the difference between the two

classes of traffic."

Do you agree to that?

A. No, sir.

Q. Dr. Nay and Dr. Kimbell do not agree on a proposition of that kind?

A. I understand that Mr. Kimbell took all the trains. He did not take the local trains and deduct from the total.

Q. That is another proposition, Mr. Nay. The proposition now

before you is taking October-that is, taking one month to represent a year's business as fairly representative.

A. I do not like to disagree with my friend Mr. Kimbell, but I will

have to in this case.

Q. A little further on he gives reasons and it is only fair that you

have before you the reasons he gave.

4676 "Q. Do you think that one month would fairly represent the business of your line for a year? A. I think for the purpose of a test of that kind, determining the relative difference between the two classes of freight, that one month is perhaps as good as

Q. Why did you select October? A. As explained it was the first full month after Judge Van Devanter granted the injunction. He granted it in September, September 3rd; we wanted to make this test as soon as possible, so we selected the first full month.

Q. In your judgment, a test of this kind, made for the month of October, would fairly represent the operation for a year, or for a series of years?

A. I should say so.

Q. Well, do you think that would be affected by the fact that this was after the panic, when the normal conditions of affairs was not fairly resumed? A. I don't understand that the month of October was after the panic.

Q. That was when the panic, began? A. Right along in there

we began to feel it.

Q. Well, do you think that matters had fairly resumed themselves; so that you could make a fair test of that year? A. I think I believe that under almost any conditions, good times or bad, the relative difference between the two classes of freight would travel uniformly. In other words, if we have poor business, it is going to affect both classes of traffic.

Q. And you think that any one month they completely worked up, would fairly represent those conditions? A: I do; yes, sir."

I think that is in full all that Mr. Kimbell has stated on the sub-I wanted to put before you in full all his reasons. Do you agree with him?

A. I do not. I want to say that the doing of this kind of work is a very great burden and, as he stated, Mr. Kimbell used the month of October not because he selected it as a representative month of 4677

the year, but because it was the first month after the injunc-

tion was granted.

I want to say further, after I found out what Mr. Kimbell was doing, I attempted the same thing on the Rock Island for the month of November, but we gave it up before we completed it, finding out that so many conditions entered into that sort of a computation that the lgures would be valueless, and we never com-

Q. You know Mr. Doddridge? A. Yes, sir.

Q. He was general manager while you were in the auditing department of the Cotton Belt road?

A. Yes, sir. Q. He ought to be fairly familiar with the conditions on the Cotton Belt and on the Iron Mountain?

A. Yes, sir. Q. At page 43 he was asked the following question and made the following answer:

"Q. Do you think that the test of one month's operation would be

fairly representative of the entire year?

A. I think in this case that it would be representative as to the relative proportions of the different kinds of business, for the reason that the month of October, 1908, was one of the heaviest months of the year, and considerably above the average 12 months, probably.

The main purpose in making this test was to determine the average relation that one class of business bore to the other and if the business of the road was lighter in a subsequent month the chances would be more than likely in favor that the relative proportions would remain pretty near the same.'

Now, what do you say to Mr. Doddridge's opinion on that

A. I say just the same, that personally I do not consider matter? one month as representive of six months or of a year. 4678

Of course, Mr. Kimbell and Mr. Doddridge both are more familiar

with the detail conditions on the Cotton Belt than I am.

But, as a general proposition, I feel, after considerable experience of my own, that one month should not be taken to represent a year's business.

Q. Would not Mr. Doddridge be more familiar with the Iron

Mountain than you ever were?

A. Yes, sir.
Q. You have served on the Cotton Belt road, as I understand

A. Yes, sir. I served 15 years on the Cotton Belt.

Q. But not on the Iron Mountain? You never served on the Iron Mountain?

A. I worked one year for the Iron Mountain, the first railroad

work I ever did.

Q. In view of the testimony of these two very distinguished gentlemen, who are so thorough familiar with these two roads, do you think the state is subject to criticism for taking one month's business as representative of six months?

A. That is an embarrassing question, the way you have put it to

me, but my judgment is they are.

Q. Notwithstanding Dr. Kimbell and Dr. Doddridge differ with

A. You press it so it makes it rather embarrassing to 4679 answer.

Q. That is a fact?

A. I think I have stated it before. I would like to agree with everybody but I cannot.

Q. There is another question I think would be fair to ask you, Dr. Nay:

You have spoken a good deal in your testimony of the consistency of our position: What do you think of the consistency of the railroads here, proving by these distinguished witnesses in their case in chief that one month was fairly representative of a year's business; and then proving by an equally distinguished gentleman, who is now on the stand, that in his opinion it is not:

Is not there some degree of inconsistency in that?

A. The testimony shows that the witnesses do not agree in every point. In fact, if witnesses agreed on every point it might look as if they had all been coached and told what to say, in advance.

Q. Certainly. But isn't there an inconsistency in the positions

I have stated to you?

A. I don't understand just what you mean. There is a difference

of opinion.

Q. The proposition is just this: In making its case in chief the railroads put on these two distinguished gentlemen thoroughly familiary with the state of the control of t

iar with affairs on those roads and proved by them that honestly in their judgment one month was representative of six months or of a year's period, or of a series of years, as

between state and interstate traffic; and now they put on another distinguished gentleman, honest in his opinion, to prove that is not the case:

Is not that an inconsistency?

A. I think it is a difference of opinion, because I think each man

has been consistent throughout.

on the same point in the case.

When I spoke of inconsistency I spoke of the same man using one method in one division of expenses and then switching to a different method for a division of a similar expense.

Now, I do not understand that that is the case in the question you

are asking?

Q. I am removing the personal equation and putting it as to the railroads:

Both these gentlemen are entirely consistent and so are you. But here is the railroad proving by one set of gentlemen, who are consistent, who held one view, and then in their rebuttal testimony they are proving by another consistent gentleman another opinion,

A. I do not think I should be asked to pass upon the position of

the railroad. I think the court can do that.

Q. I think the question rather answers itself, anyway.

Just what are your reasons that using that one month is not fairly representative of an entire year? Why should not one month be representative of an entire year's business?

4681 I am not speaking of any particular month but on the general proposition?

A. One reason is that the lap-overs are not the same one month as

compared with another.

As I stated in my testimony, the Rock Island changed its method of computing the operating cost because we found that the lap-overs were so entirely different in one month than what they were in another.

Another reason is that the character of the business is not the In the Fall of the year, in the southwest, the cotton traffic That is, when cotton predominates.

Q. I asked you not to take any one month. I asked you just on

the general proposition.

A. I said in the Fall of the year. I do not think I mentioned October.

Q. Proceed.

A. In the summer months, April or May, of the spring months, are the two lightest months of the year. The traffic is lighter in those months than in any other.

Then, again, during the summer months, when the traffic is light, it is very frequently the case that that is when the very heaviest

maintenance work is done.

At certain seasons of the year the passenger business is heavier than

at other seasons.

It is frequently the case and I think is the result of good management, to repair the passenger cars and incur expense of that character when the passenger traffic is the lightest.

So we have all those combinations, certain seasons when the traffic is heavy and other seasons when it is light. The character

of the traffic being different in different seasons.

And I am of the opinion that the only way to get the true result is to take 12 months in succession, which will reflect the various conditions that exist during the year.

Q. Do not all those various things you have mentioned practically

affect state and interstate traffic alike?

A. Well, they might. But owing to the difficulty of separating expenses, the impossibility of actually separating the expenses between state and interstate, it is hard to say, whether they affect them alike or not.

For example, in 1907, was when we had the biggest blockade on

the Rock Island that we have ever had in my recollection.

The great trouble then was with the grain; grain which was moving from Nebraska and Kansas into Little Rock and through Little Rock and beyond. The great trouble we had was with the grain, at that time. That was the thing that was delayed more than anything else. And that was all interstate business.

Q. That was an abnormal condition you are speaking of now?

Yes, sir, I am saying it was the greatest delay we ever A. had.

4683 Q. That delayed other business?

A. Yes, sir.

Q. It delayed the local business?

A. Oh, yes.

Q. Would it not have a corresponding effect on all business?
A. No, sir, I do not think it would have the same effect on the state business.

The movement of state business is short, as is evidenced by the short average haul. It would not be subject to all the delays that affect interstate business. That would be my judgment.

Q. That is the time when the short haul would be cheaper than the long haul, wouldn't it?

A. I am not sure about that.

The relation between the two would be affected by these conditions.

Q. The cost of the long haul would go up and relatively the cost of the short haul would go down, under such conditions?

A. Relatively, yes.

- Q. Did you not recently, in a hearing before the Examiner for the Interstate Commerce Commission, present one month as a fair index of the year's business of your road? A. No, sir.
- Q. Did you not present one month as a fair index, and add to that the revenue for three weeks succeeding that one month?

A. That made seven weeks.

4684 Q. But your total expense and income was for just one month, wasn't it, as shown in that statement?

A. Yes, sir. If you will read my testimony, Judge Hill, you will find I stated there that that was all we had and I gave the last week we had.

That was in the early part of September, before we had even the fourth week of August, and we gave them everything we had.

They asked me then, might not the earnings be a great deal more than those seven weeks would indicate, and I said "yes, they might." I said also "They might be a good deal less." I said "This is all the evidence we have got up to this time."

I have never selected one month or seven weeks, where more time

was available, Judge Hill.

Q. Here is the point, isn't it a fact that you selected one month completely worked up, and supplemented that with three weeks revenue and presented that as a fair index of a year's business.

A. No, sir, I presented that as the best idnex we had.

Q. Didn't you say it was a fair index?

Col. Moore: Have you his evidence there, Judge Hill?

Judge HILL: Yes, I have it here.

Mr. NAY: If you have it there, please read it.

Judge Hill: I will read from your evidence given before the Examiner for the Interstate Commerce Commission at Chicago recently, as shown at page 849: Exhibit "C": This was in regard to 4685

"Q. Will you please state what is shown by this exhibit? A. This exhibit is a copy of the report for the month of July to the Interstate Commerce Commission, which was mailed to that body yesterday. It shows the operating revenues and operating expenses and taxes and outside operatings for the month of July, 1910, compared with July 1909. It shows that the freight revenues for July, 1910, decreased \$110,620.06 compared with July 1909. that the operating expenses during the same month increased \$281,-454.03. It shows that the deficit from out-side operations decreased It shows that taxes increased \$42,959.32 and that the

operating Income for July, 1910, compared with July, 1909, decreased 378,901.68.

And to continue the history down to the latest date we have, which is our estimated gross earnings for the three weeks ended August 21st, there is a decrease for those three weeks in freight revenues of \$243,272, which makes the total decrease for this fiscal year, for the seven weeks in this fiscal year of which we have any record, as to the freight revenues, of approximately \$355,000. It also might be well to point out that the report shows that the principal increase in operating expenses is in transportation expenses, and not in maintenance of way where Mr. Melcher testified he would like to spend the money.

Q. Mr. Nay, using the exhibit last introduced in connection also with your estimate for August, for a certain week in August, using this as a basis, what do you think is the outlook for the fiscal year

1910-1911?"

Then you gave an answer about that which is hardly pertinent to our question in this case, unless you wish to hear all of that read.

You remember there was quite a discussion about your views in there.

Then you were questioned by Mr. Thorne (page 908):

"Mr. Thorne: Your volume of business has been increasing as a general thing from year to year during the past ten years, has it not?

A. No, sir—during the past ten years, yes, sir; but as 4686 stated yesterday in my direct examination, the volume of business decreased for the month of July, and has continued to decrease for the three weeks in August concerning which we have definite information, and based on that,—

Q. What exhibit is that shown on?

A. That was stated on Exhibit 6, and also stated in connection

with my direct testimony concerning Exhibit No. 6.

Q. Is it your opinion that is a fair index, that increase for one month is a fair index of the volume of traffic or earnings or expenses for the year as to whether it is greater or less than the prior year?

A. I have no other basis to go on than past experience by which

to judge the future.

Q. And you would say that that was a fair index, whether one month is higher or lower than the same month for the prior year, is a fair index as to what the earnings or expenses would be for the entire year?

A. This is more than one month, begging your pardon.

Q. And two weeks, then.

A. One month and three weeks.

Q. All right, one month and three weeks. Do you think that is a fair index for the year as to whether it should be greater or less?

A. As I said before, it is the only index that I have before me.
 Q. Did you ever make any effort to find out whether that was a
 fair index by examination of the same item in prior yeares.

A. I do not understand just what you mean.

Q. Did you ever make any effort to ascertain whether that did

prove to be a good index as to whether the earnings increased or decreased for the year?

A. Yes, sir, providing conditions remain the same. Of course,

Mr. Examiner, no one can foretell the conditions."

Then you go into a discussion.

A. Right there is where I made the explanation. You will notice I said there:

4687 I will continue reading:

"Three years ago, in 1907, at this period of the year I would have stated, if I had been asked the question that we would have had a very large increase in revenue for the year ended June 30, 1908, but when the panic times came in 1907 the revenue went to pieces and that would have destroyed my judgment. Now good times may come, or worse times may come. The only information I can give is based on the experience up to the latest available data.

Q. I am going to ask you Mr. Nay, to read into the record at this time the net operating revenue of the Chicago, Rock Island and Pacific Railway Company for the months of July, 1907, to June 1908, inclusive, as shown in the reports you have given to the

Commission.

I can say this, I do not want to burden the record with a great mass of statistical reports, but this will help me in my cross examination at this particular point."

Then you take up and read into the record a lot of data which

I will omit. Do you remember that?

A. Yes, sir. Q. Further on the following occurs:

"Q. Now, Mr. Nay, considering the fluctuations you have stated there, do you still think that the net operating revenue, whether it is higher or lower for any given month is any index for the entire year?

A. Yes, sir."

A. You notice that question is "any index" and I said "yes." But I did not say it was a fair index. I qualified every answer, all the way through. There is not a single answer where I say that it was a fair index. I said I had given every bit of information I had up to the year minute and I care them a converte tion I had, up to the very minute, and I gave them a copy of the report sent to the Interstate Commerce Commission, which had been sent to them just the day before. I gave them a copy of the esti-4688

mated weekly expense which we get out every week and I gave

them the latest information we had.

I qualified that by further saying "Good times may come so the earnings may be more than I now expect, and bad times may come and the earnings may be a great deal less."

I gave them that as the best and latest information we had, up to that minute.

Certainly if six months or twelve months had been available I would have given them the six months or the twelve months.

Q. You put that exhibit in there believing it had value as a fair index, did you?

A. No, sir, not as a fair index.

The last question asked me was "is it any index". And I said "Yes, this is any index".

Q. You put it in as any index but not as representative at all.

A. I gave them the earnings and the operating expenses for thirteen years, beginning with 1888 and ending with June 30, 1910.

These had been compiled during the month of August, and then before the trial came on on September 2nd—in the meantime I had sent forward the report for the month of July on the first day of September—and I supplemented that thirteen years' statement with the very latest information we had; and submitted it for what it was worth, to show the trend of the earnings, at the very latest period.

Q. And gave your opinion, and judgment, in your testimony as

to the future based upon that seven weeks' exhibit?

689 A. Yes, sir, qualified by the statement that better times might come and it would be increased; or worse times might

come and the showing would be worse.

Q. Has not the Interstate Commerce Commission in some of its hearings indicated that for a year's business they wanted two months, and indicated those months to be September and March?

Col. Moore: For what purpose?

Do you mean the volume of business or the profit or what?

Judge Hill: I do not know the detail of that but I think Mr.

Kay does.

A. I can explain that. The proposed increase in rates would yield a certain amount of increased revenue; and in order to show an approximation of the increase in the amount of revenue that would be created by these increased rates, the Interstate Commorce Commission designated September, 1909, and March, 1910, as the months that should be taken to compute this one item of increase in freight revenue that would be produced by the proposed rates as compared with the rates that were actually in existence during these two months.

I have talked with one of the representatives—I forget now just who it was, but I think it was Mr. Lutz who is Assistant to Professor Adams—and he picked those out as being perhaps average months; not being the largest months nor the smallest months.

Q. Would there be any difference in principle in taking one month as an index of six months and taking two months as an index of twelve months?

A. No, sir, but understand those two months were taken as an

approximation of simply the one item of increased revenue.

The exhibits that were presented there representing the earnings and operating expenses, taxes and so on, were all for a period of years, from five years up to thirteen; and the exhibits that are being compiled by the Interstate Commerce Commission (proofs of which I have seen) in connection with this rate case, covered a period of ten years from 1901 to 1910 inclusive.

Q. And you would not think it would be safe to take one month

as representative of six months; or two months as representative of twelve months, to get at the fair representation of the whole business of a railroad over a series of years?

A. Not for any final determination where accuracy was required. For an approximation where special accuracy was not needed, two

months or one month might be taken.

Q. While I have this in mind—it is a little diversion but I believe

I will take it up now-

I notice in your testimony there before the Master you stated you had a formula for dividing expenses between freight and passenger which had been in use on your road for some eight or ten years,

4691 I wish you would state just what that formula is.

A. I could not state that offhand. It comprises several pages.

Q. Give us the substance of it, the principle involved in it.

Col. Moore: If you are going to try to get anything of that sort

in the record you should get it in correctly.

Judge HILL: I think Mr. Nay can give it correctly. I do not know that the detail would be important but I want to get the important details, that he considers important.

Col. Moore: A man trying to put in a matter that covers several pages might omit some detail that would be very important. I have

no objection to it being put in in its entirety.

A. I was going to suggest that we have a formula in print, and I could send a printed copy to Judge Moore to be embodied in the record.

Judge HILL: I shall be glad to have it but in the meantime for the purpose of this examination, I would like to have you explain the general propositions involved in it?

A. I would rather not do that unless you insist, because I have found out that upon the witness stand if a person's recollection of a detailed formula like that, is not accurate and if he omits something, a great deal is made of it.

Q. I want simply the general principle.

If you have been operating under a formula for dividing 4692 freight and passenger for a great many years, you are familiar with the general principles involved in that and you have discussed at some length in your direct examination the general principles for dividing those.

I do not care for the details but I wish you would give us the

general principles.

A. The general principles are these:

In the first place all items that can be assigned directly to either passenger or freight traffic are so assigned. That is to say, the repairs to passenger cars are assigned to passenger traffic; and repairs to freight cars are assigned to freight traffic.

The expenses of passenger traffic offices, like the general passenger agent and the division passenger agent and the soliciting passenger

agents are all assigned to passenger traffic.

Similar employes in connection with freight departments are assigned to freight traffic.

The wages of station men at freight stations are assigned to freight traffic, and those at passenger stations are assigned to pas-

The wages of crews on passenger trains are assigned to passenger traffic; and those on freight trains are assigned to freight traffic.

Loss and damage to baggage, goes to passenger traffic; and loss and damage to freight goes to freight traffic.

4693 All the way through the items that definitely represent passenger or freight expenses are so assigned.

Then we go back and take up the items that cannot be definitely assigned, and make an approximation of the items of that character on different bases.

In some cases it is on the basis of train mileage; in some cases on the basis of engine mileage; in some cases such as for yard expenses, we get an approximation which is the result of the switch engine mileage, from our operating officials, as to the relative amount of passenger and freight switching.

I think roundhouse expenses are divided on the basis of the engines housed, engines in passenger service and engines in freight service.

But these are the principles: We endeavor to apply to our common expenses (and by common I mean those that cannot be definitely assigned as between freight and passenger) the thing that seems to have the closest relation to the expense.

Q. You take the factor which in your judgment most nearly approximates the actual conditions?

A. Yes, sir. Q. Take maintenance of way, what factor do you use there to

divide between passenger and freight?

A. We have been using-I am speaking now of the formula we use for our operating statistics which we furnish to the Interstate Commerce Commission—we have been using the passenger and freight train mileage.

4694 Q. You think that a fair approximation of maintenance

of way expenses as between freight and passenger?

A. Well, it is the fairest we have been able to find, which was available at the time we compiled those figures.

Our operating men say that the greater speed of the passenger trains offsets the greater weight of the freight trains. So that it is fair to assume the passenger train mile may be considered the same as the freight train mile.

Q. For that class of expense, between those two rather radically

different kinds of traffic, you consider the train unit?

A. Yes, sir, and I would like to say this: that these statistics are compiled for comparative purposes. They do not purport to cover the actual separation between freight and passenger of these common expenses. But by using the same unit from month to month we are able to make comparisons of one month with another. That

is the same basis of apportionment. And those figures are compiled purely for comparative purposes.

Q. I would infer from that you do not regard it as producing actual results or very close to actual results-I am referring to main-

tenance of way and so on.

A. We do not claim they produce actual results but we claim they produce the fairest results for the purposes of comparison, that

Q. Would a division of maintenance of way expense between freight and passenger on a train mileage basis be fairly accurate?

4695

A. From the testimony I have heard from operating men I think it would be as accurate as anything that is available at the time these statements are compiled.

Q. Did you make your statements to the Interstate Commerce

Commission in these various exhibits based on that formula,

A. Yes, sir.

Q. Now, right in that connection, I want to ask you: In the numerous exhibits you filed in that case which I believe was a case where you were seeking to get an advance of interstate rates granted by the Interstate Commerce Commission—that was the purpose of that hearing, was it not? A. Yes, sir.

Q. Did you make any separation of state and interstate business?
A. No, sir.

Q. Your system runs into ten or twelve states, does it not?

A. Fourteen states. That is, the company, the C. R. I. & P. runs only into twelve states. The lines in New Mexico and Texas are under separate corporations.

Q. The one before that hearing operated in twelve states?
A. Yes, sir.

Q. You had no separation of state and interstate, or income and expenses, in those statistics you presented to the Interstate Commerce Commission, showing the necessity for an increase of your 4696

A. No, sir. The reason for that was because it was a human impossibility, Judge Hill. It would have taken a force of say 100 or more men two or three years to have compiled that information for a representative period for the twelve different states—the entire business of the company.

I stated that in my testimony at Chicago, that the compilation for one state was a small matter as compared with the compilation

We simply gave the best we had. In the length of time we had to prepare the testimony it was impossible to compile state and interstate information for anything like a representative period.

Q. You have separated in some ways your state and interstate business in quite a number of these states, have you not, where you have rate cases pending?

A. We have in Arkansas, Oklahoma and Nebraska.

We have some started in Missouri but they were two or three years old. We did not continue the separation after the case was closed.

Q. Does this railroad run into Minnesota?

A. We were not in the Minnesota case. We abided by the decision as to the others. I prepared no statements for that case.

Q. You prepared no separation of state or interstate in Minnesota?

A. Not in freight.

Q. Did you in passenger?

A. Yes, sir.

Q. As I understand your method of preparing separate 4697 statements for state and interstate business, in any given state, under the revenue theory (which you adhere to) you show a great deal increased cost of operation of the state over the interstate business, do you not-per ton per mile, I mean?

A. By separation of state and interstate business you mean state

and interstate expenses, I presume?

Q. Yes.

A. Yes, sir, it shows an increased cost per ton mile of state over interstate.

Q. I believe you testified in that case, speaking roundly, that your state business was about 20% of your whole business, isn't that true?

A. That was a guess pure and simple, based on these four states we had prepared statements for.

Q. That was your best judgment?

The word "guess" came up in that case and I looked A. Yes, sir. it up in Webster and found the definition about as follows: it is a tentative conclusion based on experience without detailed information.

Q. And that was your "guess" that the Rock Island interstate traffic in twelve states based on the statement for four states, is 20%

of the whole?

A. Yes, sir, and it might prove to be not over 10 or 12 per cent

or it might be 30 per cent.

Q. When you presented your total expenses and total revenue for twelve states and ignored the much greater expense of conducting intrastate business than interstate business, and you

were presenting these figures to the Interstate Commerce Commission looking toward an increase in interstate rates, do you think you were entirely fair in ignoring this proposition?

Col. Moore: We are not trying interstate rates in this case.

Judge Hill: No, but we are trying the intrastate.

Col. Moore: Whether it is fair or unfair in that case is not material in this case.

Judge HILL: I think it a pretty fair test. I think that is a proper question I asked the witness.

Col. Moore: Of course, I am objecting to all of this testimony as irrelevant.

Previous question read.

A. As I recall it, this proposition was not entirely ignored because the very question you have referred to, and which led me to "guess"

at 20%, was a question concerning the separation of state and interstate traffic and I said candidly on the stand that the reason why it was not done, was because of the amount of work involved prohibited it being done within the length of time we had.

But I do think it is entirely fair to present all the information that we had. And, furthermore, I had the privilege of having seen proofs of certain statements that are being compiled by the Interstate 4699

Commerce Commission employés themselves, and they are making no separation and are attempting to make no separa-

tion and have not called for any separation.

But this case was tried, not as to any individual rates, that was determined in advance, the Examiner said that the rates on coal would not be investigated separately or the rates on grain or this, that or the other thing, but this case was tried on the broad principle

that the railroads needed more money than they had.

And when I showed that the total operating revenue for the year ending June 30, 1910, the last of a series of thirteen years, after paying operating expenses, taxes and so on, left a return of only 3.77%, on the book value of the property, which was more than one hundred million less than the operating officers said the actual value was, I felt it was fair to ask for an increased revenue on that

That with the small amount of intrastate business, even allowing for the increase expense, the return would not be increased above what might be termed "compensatory"; or, rather, would not be increased to an undue return.

Q. Let us see about that, Mr. Nay:

If your contentions were true, that it costs three to seven times more to do the state freight business than the interstate; and that was true in twelve states, representing 20% of your business: and now if you had charged off say even three times your expense of that 20%, three times greater to the state business-would it not have made a material difference in the general result which you showed to the Interstate Commerce Commission? 4700

A. I don't think so.

Q. Is not that a matter of mathematics.

If you take 20% of all your business and increase the expense of that by three times, thereby relieving the expense of the interstate corresponding, and run that into twelve states: would not that make a great deal of difference?

A. Do you maintain that the cost of intrastate business is three

times the cost of interstate, on the revenue basis?

Q. I don't maintain that but a great many of the railroad witnesses have maintained it was three to eight times. Usually they are speaking of it on a ton mile basis but they generally put it at twice or three times on the revenue basis.

A. Three times would be putting it higher than the railroad men

do on the revenue basis,

Q. They put it at three to seven?

A. On the revenue basis?

Q. No, sir, on the tonnage. And two to four times on the revenue basis.

That is about the average, isn't it, Col. Moore?

Col. MOORE: About that.

Judge HILL: I take it in that difference they are saying that the

state revenue is double that of interstate.

Reflect upon that a moment and see if that would not make a material difference, if you had adopted the position taken by the railroad men, and which you recognize in your testimony as a material factor; although you have not mentioned any particu-

4701 lar figures; but accepting the opinion of the general manager, the vice-president and so on, that it was three to four times on the revenue basis and three to seven times on the ton mile basis?

A. Well, my own judgment is, it would not have made a material difference in our case, because while I do not recall the exact book value of our property, it was a little less than three hundred mil-

lion—say \$295,000,000.

To make one per cent of that would require \$2,950,000 difference, and we needed even to go up to six per cent (which I understand is the minimum amount the courts figure on as a fair return) we needed more than two per cent or in round figures six million dollars more money. And I am certain that the difference in figuring—well, I could not determine it without knowing the exact figures—would never have made that difference of six million in the interstate results.

Q. Probably it would not have made that difference but would not

it have made a difference?

A. It would have made a difference.

Q. And a very considerable difference, would it not?

A. I do not think it would have made what could be termed a very considerable difference.

Because the interstate revenue is so very much greater than the

state revenue.

Take it in Arkansas, for the six months ending December 31, 1909 the statement which I compiled for Mr. Wharton shows that the intrastate was 12.9% of the total state and interstate freight revenue.

Q. But, Mr. Nay, you are taking the revenue basis (of which you are an advocate) you would say you would set aside 20% of your property and assign it to state business?

A. On the theory that 20%—well, no, 20% of the freight propor-

tion of the property. We are talking about freight.

Q. Yes, we are talking about freight.

If this ran into all of it, it would be the whole, but speaking of freight it would be 20% of the property devoted to freight purposes?

A. Yes, sir.

Q. When you set aside 20% of the value of the property and are seeking a return on the other 80%, through the rulings of the Interstate Commerce Commission; and this 20% which is set aside would reduce—take the expenses and multiply them by three on that and

deduct that from your aggregate expenses of the 80%, do you think that would make a considerable difference in the showing?

A. It would make a difference but as to how much difference

would have to be determined by actual figures.

Apparently in this case the other side were satisfied with the explanation, because they have never called upon us for any figures or even any approximate figures such as you have asked for recently.

Q. Possibly these gentlemen do not know it costs this extreme amount for doing the state business. They are dealing with interstate. It seems you did not inform them in this hearing about the cost of this state business. You gave them no information in this hearing as to the extra cost of state business, did

A. I don't know that I have ever testified as to the amount of extra cost. The operating officials are the ones who testified as to the amount of extra cost of state over interstate.

Q. You do not take the judgment of the operating officials as to the extra cost of intrastate, when you were preparing those figures?

A. We had no figures to apply it to. There was no necessity for getting extra cost when we had no figures to which to apply the extra

As I say, the obtaining of those figures was prohibited in the time we had. It would take two or three years with a large force of men, to work up representative figures as to the cost of state and interstate traffic for the Rock Island road.

Q. You made some statements about October being a congested month, of a congested period; was not all the last six months of 1907

a congested period, more or less?

A. I think there was more or less congestion until the slump came about the later part of October or about the first of November. I do not think there was much congestion, after that time.

Q. I think some of these operating men have testified that 4704 it took quite a while for that panic to affect that freight traffic.

A. Of course, they would know better than I as to that. Q. Things were pretty well started before that panic came on?

Q. The movement was pretty well started, contracts made and

freight on the way before that panic came on, I mean?

A. I am not posted on that. But all I know is we were running to our capacity and having complaints of delay, until the panic came; and then the complaints ceased. The difficulty then was to get the empty cars home.

Q. Would you consider the last half of 1907 a normal period of

railroad operation?

A. As I said a while ago, I would not consider the last half of any year as a representative period.

Q. This is a different question: would it be a normal period? I understand your former answer but I think there is a difference between that proposition and this one.

A. Do you mean by "normal" the ordinary conditions that exist

from month to month and year to year?

Q. Say the last half of a series of years: I understand that point made about using the last half of any year but I am testing the last half of that year with a series of year- and I ask you preceding

that if that would be normal?

A. I should hardly say normal because I think, if my recollection serves me aright, it is the half year in which the largest

business of the history of the country occurred.

I think notwithstanding the slump that came in the first of November or the latter part of October and continued for some time, that the business hauled during those six months was heavier than during any six months in the previous history of railroading.

For that reason I do not think it would be just normal.

Q. If there is a congested condition of affairs in one month, or in six months, where would you find the expenses that represent that congested condition reflected—in what accounts?

A. I hardly think I would be competent to testify on that.

Q. You handle all the accounts, do you not?
A. Yes, sir. But I have not made are stall Yes, sir. But I have not made any study as to which accounts

are affected by congestion.

There is one that occurs to me now, that has been impressed upon us, and that is, loss and damage, freight; that actually occurs during Frequently it is settled later.

Of course, where there is a congestion there is a delay to freight

and claims made on account of perishable freight spoiling.

For instance, we had a lot of wheat heat in the cars and 4706 spoilt and a lot of corn did the same thing; during that period on the Rock Island. And the loss and damage account-and I am referring to loss and damage which actually occurred during that period, and which would be settled later, is one of the accounts.

Q. Those would be settled in later months—or probably later

years, isn't that true?

A. Well, that would depend, of course, upon the promptness with which freight claims are settled. We are trying to settle ours

as promptly as we can.

Q. I am not intending to make any criticism on your road in that respect. I think it is better than some others I know of. But there is a good deal of delay in the settlement of freight claims, isn't there; and a good deal of litigation over them: isn't that true?

A. Yes, sir, that is; and it is not always the fault of the railroad company. Claims are presented for a great deal more than is actu-

ally due and the railroads cannot accede to all those things.

Q. It is one of those things you cannot forecast, isn't it?

Yes, sir.

Q. You criticised the use of these October figures, I believe, in this particular regard: that these claims that would be paid in October would not be reflective of the damages that occurred in October: isn't that true of any period you would take? Say a six months' period, the same thing would be true, would it not?

A. Yes, sir. It is just like the lap-overs, Judge Hill; the 4707 effect of that is minimized the longer the period you takeor, rather, reduced. This is minimized by taking the longest period

and reduced by taking the longer period.

In the six months' period a great many of the claims caused by damages occurring in those six months would be paid during those six months and charged to that account. While I think very few of the damages occurring in any one month are paid for in time to be charged off in the accounts of that month.

Q. But you take a six months' period and take loss and damage paid during that month, it would not represent the result of expense

of operation in that account for those six months?

A. No, sir, but would more nearly represent it than in any one month.

- Q. That is unquestionably true, and would largely depend upon the promptness with which the claim department investigated and settled claims? A. Yes, sir.
- Q. I do not recall whether you discussed the passenger side of that proposition, but I assume the same principle would apply to that,

A. Yes, sir, as to claims for personal injuries to passengers. is what you refer to?

Q. Yes, the claims for personal injuries—the corresponding accounts to this in freight.

A. Yes, sir, they would be subject to exactly the same delay. Q. It is likely there would be more delay in regard to 4708 personal injuries than in regard to freight claims: It is a matter of more litigation, more protracted, is it not?

A. Well, I would not say it was more, Judge Hill.

We have many personal injury cases, and one case might be drawn out and become the subject of a good deal of notoriety; and perhaps that one case might be considered representative; while there are hundreds of cases that are settled promptly, which would be forgotten, and not thought of.

I do not believe personal injuries, are as a rule delayed more than

the freight claims.

Q. There is that element of delay in both of them? A. Yes, sir.

Q. And that would reach through any period and would depend upon the length of the period as to how far it departed from actual conditions: that is correct, is it not? A. Yes, sir.

Q. That would not be affected either by the method of dividing those expenses, would it?

A. You mean either on a revenue basis or some other basis?

A. No, sir.

Q. That criticism would be equally applicable to any basis that would be used for dividing those between state and interstate? 4709

Yes, sir. If the revenue basis was applied to one month's figures it would be subject to the same criticism as any other basis.

Q. It is practically the same thing about maintenance of way: you discussed that in criticising the division of maintenance of way expenses on the car mile basis and stated, as I recall it, that the car mileage would have no relation to the wear on the rail, because that may have occurred as far back as twenty or thirty years before; and for ties seven years before, and so on.

That same criticism can be applied to any basis of division of maintenance of way expenses between state and interstate, can it

not?

A. Oh, yes. That is to say, that criticism would be reduced the

longer the period taken.

Q. I am not speaking of the length of the period. I am speaking of that element. As I recall your testimony, you were criticising the division of expenses on a car mile basis and stated that the car mileage during those months had no proper relation to the wear on the rails and ties and so on:

Is not that criticism equally applicable to the revenue theory or the ton mile theory or any other theory for dividing those expenses

between state and interstate?

 I don't think it is equally applicable to the revenue theory.

4710 I did not quite understand your question at first.

I think the expenses are incurred during the period under consideration and must be paid for out of the revenue of that period. It is not paid for out of the revenue that accrued in previous years, because the revenue that was received in previous years is reflected in the accumulated profit and loss account; and the revenue received during the current year is reflected in the current income account, to which these items must be charged as operating expenses. They must be taken out of the revenue for the current year, and, therefore, I do not think the criticism applies with equal force to the revenue theory.

Q. But the revenue that is earned in these six months has nothing to do with the rotting of ties and the wearing out of rails and flood

damages, and all those things, has it?

A. Nothing to do with the rotting, but it must be used to renew, them.

Q. That is the source of the money to renew them.

But the question is now, does this revenue during this given six months represent the wear on that rail, to use that as an illustration?

A. No, sir, it does not and it is not the reason that the revenue theory is used.

Col. MOORE:

Q. What is the reason?

A. The reason that the revenue theory is applicable to maintenance of way expenses is that the expenses must be met out of this revenue.

4711 That cannot be charged back to profit and loss, where the accumulated revenue is carried.

Q. It is using the revenue of one period to pay for the wear of a previous period, is it not?

A. Yes, sir, and that is required by the Interstate Commerce

Commission rules,

Q. I am not discussing the propriety of it, Mr. Nay. I am merely discussing the fact, whether the revenue would represent the injury any more than the car mile would represent that injury.

A. No, sir, it does not. But the expense must be met out of this

revenue

Q. Why, certainly, I understand that.

Speaking of the car miles as the unit for measuring the expense of maintenance of way between local and through trains, isn't that a unit that is used in common practice of railroads where they have joint tracks, to determine the method of apportioning the expense of those joint tracks between the given roads?

A. That is one of the methods that is used. Q. It is very commonly used, Mr. Nay, isn't it? A. There are three methods used, Judge Hill:

There is the train mile, the car mile and the wheel mile. in some cases an arbitrary basis of one-half or one-third and twothirds; and in other cases the revenue basis is used. All of those units are used.

Q. I understand from the operating men, like Mr. Gray, 4712 that the car mile and the wheelage bases are synonymous; that the car mile basis is a term that originated from the old method of counting the wheels but now they call it the car mile basis:

Is that your understanding?

A. Yes, sir, that is done largely to simplify the proposition. But we are still using wheel miles in many contracts today. And

the latest contract made was on the revenue basis.

Q. In one of these states where you have rate litigation? A. No, sir, in New Mexico where we have never had any rate litigation.

Q. Where you are getting ready for it?

A. No, sir, we have never had any trouble down there or any pleasure of this kind.

Q. I believe these learned doctors who have disagreed upon some other proposition on this Iron Mountain and Cotton Belt Railroads, have agreed upon the car mile basis for paying maintenance of way expenses on the joint track that the Iron Mountain uses with the

My point is this: it is a common basis used among railroads in

their own affairs, is it not?

A. Yes, sir. But I wanted to make it clear, Judge Hill, that it was not the only basis but that there were these other bases, too.

Q. Didn't you state there was practically no difference so 4713 far as freight cars are concerned, between the wheelage basis and the car mile basis?

A. In these contracts there is no difference made.

Q. As a matter of fact, is there any difference of any moment?

A. I do not think there is any great difference, no, sir.

Q. That would be one of these "negligible quantities" we stop at? A. Yes, sir, because there is really only about 10% of the expense that is at all affected by car miles or wheel mileage.

Q. I believe the doctors have disagreed on that from 75 to 90%.

A. Yes, sir.

Q. While talking about wheels—it is a little digression but I will

ask you this question:

Did you ever ascertain about the relative weight of an average locomotive, loaded with coal and water; and the average freight car, loaded with the average load; and find out that the locomotive

was about 21/2 times the weight of the loaded car?

A. I think I have, offhand. And then, subsequently—I think it was in the Nebraska rate case we made a computation. I intended to bring with me our roster, which shows the weight of the locomotive and cars, but I forgot to bring it. I do not recall what that is.

I do not know that I have anything here that would show. Q. Did you testify in that case it was about 21/2 times?

A. No, sir, I ascertained that in preparing some data for cross examination of the state's witnesses. (After examining paper) No, sir, I have not anything here that would give that.

I have the average weight of a Rock Island locomotive on the

drivers, 74 tons.

I have not the average tare weight of our freight cars, but I think

they will average not to exceed 20 tons.

Of course the average weight on the drivers would not include the tender. I think it would be a much greater disparity in weight if it were looked up.

Q. I just wanted to know and was under the impression you

had it?

A. I haven't it here.

Q. You refer to the lighter loading of the cars in the local train, making less difference in the repairs of maintenance of way on that acount; that would be, if an error, an error against the local train in this case, would it not?

A. Yes, sir. Q. Now, Mr. Nay, I want to call your attention to your testimony at 436 of the record. I wish you would turn to it. I do not understand it. You were asked this question:

"Q. Referring to the allowance of 50% for station switching in this connection, do you think it would be proper to charge as large

a proportion of it to interstate business, that is, business coming into and going out of the state from another state, as you

would charge to intrastate?

A. No, sir, I would not. That is to say I think a greater portion of that charge if we could ascertain what that is, should go to state business than to interstate."

If you look at that exhibit I think you will find that the station charge is measured between local and through and not between

state and interstate: is not a fact?

A. Yes, sir.

Q. I confess I do not understand your answer there at page 436.

Col. Moore: If you allow me I can explain exactly what it is. Judge HILL: He made the answer there.

A. The question is:

"Do you think it would be proper to charge as large a proportion of it to interstate business, that is, business coming into and going out of the state from another state as to intrastate business"and I said :

"No, sir, it would not."

- Col. Moore: That is the 50% allowed to the cost of local trains? Judge Hill: You see the 50% is not 50% for state or interstate but 50% allowed to the local train?
 - A. Yes, sir. But my answer still answers the question asked me. Q. How does it answer the question?

A. The question was, would it charge as much to interstate 4716

business as to intrastate and I said, no.

Q. They are not charging it to interstate or intrastate; they are charging it to local and through; they are charging it to the switching of that local train.

A. Yes, sir.

Col. Moore: Read back there and see the context.

Judge Hill: I did not so understand it in this record.

A. That is the reason I answered the question as I did. The question asked between state and interstate and not local and through.

Judge HILL:

Q. And the allowance to which you refer applied to local and through and not between state and interstate?

The whole point is this: you have not made your position clear to my mind. If that answer has done it, it is due to my dullness and

I would like you to explain just what your view is upon that subject. A. I think I understand the point of your question now. That is, that this 50% that is added to the local trains adds that much to the state and interstate traffic alike that is carried on the local trains.

Q. Yes.

A. And Judge Moore asked me as follows:

"Referring to the allowance of 50% for station switching in this connection, do you think it would be proper to charge as large a proportion of it to interstate business; that is, business coming into and going out of the state from another state, as you would charge to

intrastate business." And I said: "No, sir."

4717 That is to say, I think a greater portion of that charge, if we could ascertain what that is, should go to state business than to interstate business.

While this addition of the 50% to the local adds it to the state

and interstate alike.

Q. And you do not think that is correct?

A. No, sir.

Q. If I recall correctly the testimony of the numerous operating

men here it is that freight after it gets on the local train, whether state or interstate, is handled exactly alike.

What would be the difference in the handling of the two classes of trains, in the switching of the interstate, on the local they would be handled alike?

A. I think undoubtedly they refer to the direct labor and ex-

penses that it receives and incurs en route.

Q. The testimony will show it is a good deal broader than that. But that is the point I wish to get from you, whether you disagree with that view, and that is the point to which you were referring?

Col. Moore: I cannot entirely agree with your assumption as to what the operating men have testified to. I understand they testified that all conditions being the same, there would be no difference in the handling of the two classes of freight on the local trains.

But all of them have testified that the conditions are not the same and everyone of them have testified that the larger

part of the expense of the local trains grew out of the difference in the handling of state and interstate freight, and assumed that the larger part of it should be charged to state freight. On account of the difference in haul and many other matters of that sort.

Judge Hill: My recollection of the testimony of Mr. Whitenton—I am speaking from memory as I have not it before me, was that he said after freight gets on the local trains there is no differ-

ence in it.

Take the local train from Fort Smith that has five cars of interstate freight that came in from St. Louis, say, to be distributed upon that road; and they have five cars on there to be loaded on the industrial tracks, or from the Rock Island: the handling of that they say would be the same, after it gets on the local train.

That is the point on which I wish to get your views.

Col. Moore: The contention is there would be no difference, they ay.

Judge HILL: There would be a difference, of course, but my point

is to get how Mr. Nay looks at it.

A. My understanding is that this allowance we are speaking of is an allowance for extra switching at local stations, and not the handling en route.

That is why I said a while ago that these operating men who spoke of the expenses being the same, meant the expense en

route

4719 This extra allowance for station expenses by being applied to both state and interstate alike, and then subsequently divided on a ton mile basis, does not in my judgment assign enough to the intrastate business, because each intrastate shipment has two terminals within the state and is handled at two stations; while an interstate shipment has this terminal switching at only one point in the state.

Q. That is taken care of in another movement, the two terminals proposition:

But we are now down to your interstate freight being put on the local train?

A. I do not understand this 50% which it is said is added for local

station switching and not for the hauling between terminals.

That station switching is supposed to represent the additional repairs under the head of maintenance of way, that will be caused by the local switching.

The point I make is, that I claim there is more local switching per ton mile to state shipments than there are to interstate ship-

ments.

Q. But not in the same train, is there?

Col. Moore: You mean maintenance of equipment, don't you? You said maintenance of way.

A. No, sir, I mean under maintenance of way.

Q. That comes under maintenance of equipment doesn't it? A. No, sir, it is under maintenance of way and structures.

4720 Mr. HILL:

Q. Here is the point where I think you do not quite gather the

movement we are now referring to:

Suppose a car of merchandise from St. Louis was brought into Little Rock over the Iron Mountain rails and set out into a local train at Argenta. And a car was brought in over your line from Forrest City or Brinkley, or some point on your line; and they were set into the local train, both going up to Morrillton:

Would not the switching on those, the one being a state and the other an interstate car, if they both found their way up on that local

train in the same manner, be the same?

Now, would not the movement on the local train-now I am not referring to the additional terminal at Forrest City, or in St. Louis on the other shipment which would not be in this case-but I am referring to the movement on the local train after those two cars were put into it: would not this item be the same for both?

A. If they were going to the same industry?

Q. Yes. A. Yes, sir, the local switching at Morrillton.

Now I understand this 50% is added for the local switching that is necessary to be done at Morrillton. He based it on the local engine switching, as there is no switch engine at Morrillton.

Q. That is true.

A. The instance you have cited speaks of an interline shipment and a state shipment.

4721 If you had taken a car from a point on the Iron Mountain beyond Little Rock, say at Camden-they may have a switch engine at Camden-but at some point below Little Rock.

Q. That will do.

A. Suppose they have no switch engine at Camden, and take a car coming from Camden to Morrillton, that car would receive that local switching at Camden.

Q. And that mileage would be on the local train and not on the one going up to Morrillton?

A. You don't treat them as trains, but add 50% to all the mileage

of the local trains,

Q. But we get all the local trains?

A. You add 50% to the mileage of all local trains and in the end

divide that 50% on a ton mile basis.

Here is a car we will say going from a point say 30 miles south of Little Rock to a point 30 miles north of Little Rock; that would be That receives two terminal handlings. If there are 20 tons in the car the tonnage contained in that car would be 1200 tons one mile.

Now, if you have a car coming from St. Louis to this same point through Little Rock, the car we will suppose will travel 200 miles in Arkansas, and have the same weight that is to say, twenty tons. The ton mileage on that car in Arkansas would be 4,000 ton miles, as against only 1200 miles on the car that received two terminal handlings.

Therefore, the car that received only one terminal handling in Arkansas would be charged with 3\frac{1}{3} times as much under this method (indicating exhibit) as the car which re-

ceived two terminal handlings in Arkansas.

That is why I claim this addition of 50% to both state and inter-

state is unfair.

Q. Don't you think that is taken care of on the other train—in the illustration you have given-by the allowances that have been made for the terminals and all the switching down there?

This proposition we are now after, is after it gets on to the local

train.

You see that movement may represent a half dozen, but each of

those is taken care of.

You see that 4,000 ton miles you referred to is not 4,000 ton miles in that local train, but that is found reflected in the other train, and it is properly taken care of.

A. Suppose then, it travels the same distance—

Q. Take my illustration and I believe it brings out the point. A. Let us take my illustration and reduce it to the basis of the

local train.

Suppose this travels the same distance as the car in the local train, it will have the same ton mileage and have the same terminal handling charge to it. And in that case-

4723Judge HILL:

Q. It would not on that train but it would be on the other train. If you study that out you will see that it is taken care of. I do not really think there is any difference between us, if we understand each other.

A. I think there is 100 percent difference between us. Let us

take this while it is fresh in our minds.

Take it in a case where the interstate shipment is hauled exactly

the same distance and in the same train-and I assume that is what you are driving at, is it not?

Q. Yes.
A. If the weight is the same there will be exactly the same ton miles for the state as for the interstate shipment.

A. Yes.
A. (continued). And that will assign exactly the same expense to the intertsate shipment which has only one terminal switching as to the state shipment which has two terminal switchings.

Q. It would not be two on that train? A. It would be two on the same mileage.

Q. No, Mr. Nay, you are mistaken.

A. My illustration is, they are handled the same distance on the same train.

Here is a shipment which originates at Little Rock, say for example. It is destined sixty miles south of Little Rock and is taken out on a local train running south from Little Rock.

Here is a shipment which originates at St. Louis and 4724 comes to Little Rock on a through train and is there put on a local train having the same destination as the local shipment. Each shipment travels (supposing the weight is the same) the same distance on that local train and has the same number of tons one mile; and each one would receive the same charge for this additional terminal service; while one has two terminal switches and the other one only one.

Q. The interstate shipment would have a terminal switching at Little Rock, taking it off the through train and putting it on the local train; would not that be the same switching as if it were taken off your line or picked up off the industry track? There is the point

you overlooked.

A. No, sir, I do not think it would be the same, because the in-

dustry switching would be more.

Q. There is some evidence on that subject here—a whole mass of it. But for the purposes of this question, this switching, whether for the same degree, in some cases it might be more and in some cases less; but taking it that there is switching service performed in Little Rock to get it off of the through train from St. Louis and put it on the local—say it was going to Malvern—and taking the local car and putting it on that local and taking it to Malvern-that would be the same thing, would it not?

A. That would be similar. But how about a car picked up be-

tween Little Rock and Malvern?

Q. State.

4725 A. It would necessarily be state.

Q. There would be no interstate car you could pick up to parallel that.

You are speaking now of the comparative switching of the two? A. No, but there might be an interstate car come into the train at a junction point.

Q. It would be taken care of just like the other.

Let us stick to our illustration first.

Take the switching done on a car brought from the through train onto the local train, and one picked up from an industry track and put on the local train, and both put out at Malvern:

Is not there the treatment just alike, and properly so?

A. Those two cars I think would be treated alike.

Q. And properly so?

A. I am not so sure about that.

Q. The point of difference is the amount of switching I suppose you have in mind?

A. That would be one point of difference.

Q. There is a good deal of conflict in the evidence on that point. I do not care to go on that. We have a lot of switchmen who have testified on that. I suppose you will acknowledge their superiority to you in that respect?

A. Every time.

Q. I don't care to discuss that matter with you, but the method of taking care of it in the accounts I wanted from you.

A. Any state cars that are taken up on local trains and set out at local stations would have two terminal switchings for each shipment.

Q. There is no doubt about that.

A. While the interstate shipment would have only one.

Q. But you cannot get your interstate shipment on to that train without switching it onto that local train, is what I mean. Don't you see that?

A. It can be set in at the terminal point—say at Little Rock. It

can be put into the train.

Q. That is a switching service?

A. Yes, sir, but that is not switching by a local train.

Q. It is not switching by the local train?

A. No, sir. And this 50% is added for switching by local trains.

Q. Would not that be done by the local train?

A. No, sir.

Q. If I remember it correctly, these switchmen testified it was.

A. At Little Rock?

Q. Yes. I am speaking from memory now and I may not be accurate.

A. If the local engines do their own switching at Little Rock, of course that would be true. But that would be an unusual 4727 condition.

Col. Moore: That is not a fact. A switching engine is maintained there at Little Rock.

A. But here is a case: take this car which goes from St. Louis to Little Rock, and goes 60 miles south of Little Rock to a station; that 60 miles with 20 tons of freight makes 1200 tons one mile and has one terminal expense.

And here is a car which is picked up 30 miles south of Little Rock, by this local train, and hauled 30 miles south of the distance at the south point, it moves sixty miles, weighs twenty tons, and has

1200 tons one mile.

This first interstate shipment has the same number of tons one mile and receives the same amount of this extra charge of 50% as the shipment which moved from this point 30 miles south of Little Rock to a point 90 miles south of Little Rock; while the second ship, ment unquestionably has two terminal switchings by that local train; and the first shipment had only one terminal switching by that local train; and yet the ton miles in each instance are the same.

Now it is cases of that kind which I was trying to get at, which

would work an injustice to the intrastate traffic.

In other words, under the most favorable circumstances there might be an even break; but under circumstances such as I have indicated, the intrastate business is relieved of a large part of the expense with which it should be charged. 4728

Q. I believe we can show you a large part of that has been

taken care of,-

Col. MOORE: I would like to call the attention of Mr. Nay to one

of the instances you have recited .

Mr. Hill has put a hypothetical case, where state freight would originate at Forrest City, go to Little Rock and then go on to Morrillton; and compared that to an interstate shipment.

In the light of the evidence in this case I understand the state shipment would have the terminal service necessary to properly load it and so on, at Forrest City; then be put in the local train running between Forrest City and Little Rock, and then go on to Morrillton.

A. Yes, sir. Q. If you call the transferring of a car like that "terminal handling" it would mean that the car would receive three terminal handlings, would it not?

A. Yes, sir.
Q. The car shipped from St. Louis would receive its first terminal handling at Little Rock on the transfer of it to the local train; and the second at Morrillton: if you should treat transferring it from one train to another as a terminal handling, there would be three handlings of that as against the two handlings of the interstate

Judge HILL: That would be two on the Iron Mountain, but there would be another terminal handling on the other road.

A. In his first question he assumed the haul to Little 4729 Rock would be on the Rock Island road.

Judge Hill: I compared it to the St. Louis shipment where the first terminal handling would not be in this case at all. In the other case it would be on the Rock Island road.

4730 Cross-examination of Frank Nay, continued, as follows: By Judge HILL:

Q. I believe we were playing switchmen, when we quit, weren't we?

A. We were doing local switching.

Q. Suppose a case like this: State freight hauled on a local train,

which originated at a point where the local began its run, say Little Rock for instance, or which was put on a local train and which was destined to a station at the other end of the local train's run: That is, where the state freight was run from one terminal to the other:

What about the switching on that proposition?

A. There would not be any local switching.

Q. No station switching?

A. No station switching by a local train on that.

Q. That might compensate for some of these possibilities you have conjured up here this morning, might it not?

A. I think when you speak of the possibilities conjured up-

Q. I do not mean that offensively at all, Mr. Nay.

A. I think that is putting it pretty strong.

I think the illustration I gave is one that would happen every day in a local train.

Q. I do not agree with you on that, but that is more of

4731 a switching proposition than a local train one.

But if there should be such as that it would be like the

one I have mentioned?

A. Yes, sir, it is my understanding cars like that are more apt to move on through trains, in the ordinary course of business, a car going from one terminal to another.

Q. More ordinary than practical?

A. No, sir, I think every practical railroad man would put that car right on a through train to go straight through to the next terminal; and I think that would be more of a conjured up case than the one I gave.

Q. I don't think so. But the conductor's wheel report would

show that.

The Iron Mountain has, and I think the Cotton Belt, but I do not know so much about the Cotton Belt as it is a kind of "second fiddle" in this case—with due deference to Mr. Kimbell—it had switch engines at several points other than the terminal points; and any state freight destined to such point, originating or destined to a division terminal from such points, would have no station switching done for it at all by the local train, would it?

A. No, sir, and I should imagine in those cases the same thing would be true as is true of cars moving between regular terminals,

that the through trains would handle the cars, largely.

Q. Do you mean by that that the local division would be the same

feature as the through division?

A. No, sir. I mean by that, that the through trains would more than likely stop at those local termini and pick up and set out cars that were destined thereto, and the very fact that they had switch engines there would no doubt make that move. Of course, the operating men could tell better as to that, but in my experience that is usually the case.

Q. The local division points, for instance, between Fort Smith and Little Rock and Russellville, I think at one time it was a through division and at another time it was made a local division.

That frequently occurs, that there will be a local division point that is not a through division point; and there is a great deal of traffic handled at such points; it is not an insignificant matter. Isn't that true?

A. Yes, sir.

Q. And the situation I have stated to you here would occur in

such cases as that, would it not?

A. Yes, sir, it would occur. But I taink the regular operation of the road from day to day would show that the cars which moved between division points. local and through, would be hauled very largely by the through trains.

Q. That is a matter of detail.

You were just speaking generally of the way it should be done, on the theory that as it should be done that way it was done that way.

A. As I say, that is a matter of good railroad practice. 4733 Q. Because you think it was the usual practice you think the Iron Mountain Company did that?

A. I do not know that their practice is worse than others. Q. You are assuming they followed good railroad practice?
A. Yes, sir.
Q. You have no knowledge directly as an operator, yourself?
A. No, sir.

Q. I believe you testified in the Chicago case you were a bookkeeper who recorded history and did not make it?

A. Yes, sir,—or words to that effect.

But I also testified I had been on the road considerably and observed operating conditions, and when I speak of these cars being picked up or set out at these local division points, I am sure that is the practice-of course, that is a matter of history, too, because the train reports show that.

Q. Mr. Nay, I find on page 438 of your testimony this question: "It is an addition of 50% mileage to provide for possible extra maintenance expenses due to yard service. The accountant, Mr. Wharton, who filed this, stated it was an arbitrary assumption; that they had no information or no means of obtaining any information.

What do you think about that method of proceeding to make

such a division of this class of expense."

And this was your answer:

"Making an arbitrary assumption, without anything to base on, might or might not lead to true results, and is more apt not to, I think."

4734 Col. Moore: Is that maintenance of way you are speaking of, Judge Hill? Judge Hill: I think it is, yes, it is maintenance of way.

Q. Now, I want to call your attention to the testimony of Mr. Wharton. I believe you said you had read it.

At page 576 he said:

"Q. I see you added 50% to the engine mileage of local trains, on account of station switching: Where did you get that per cent? 130-813

A. That percentage was worked up after consultation with Mr. Hamilton and with others, and was simply an arbitrary percentage added.

Q. That was simply an arbitrary assumption? A. Yes, sir; an arbitrary assumption.

Q. You had no knowledge or information which qualified you

A, Except such as I just stated, discussing the matter with Mr.

Hamilton and others.

Q. And you had to adopt some basis—an arbitrary one—just like it has been said in this case that the revenue basis was an arbitrary one? You had to have a basis and you had to take something for that basis?

A. We felt that something should be added to local engine mile-

age for that purpose.

Q. But you did not know whether 50% or some other figure should be added?

A. No, sir.

Q. Then you added 150% for each engine mile to make it equal

a car mile: why did you do that?

A. We added 150% to each engine mile, also after consultation with Mr. Hamilton and with others, as representing the difference in the weight of the engine and cars.

Q. Did you weigh an engine and car for the purpose of ascer-

taining from actual weight what the difference was?

A. No, sir.

Q. Then what reasons were given in your consultations-4735

if you had consultations you must have developed some reasons—for adopting that per cent? What was the reason, that is, what I want to ascertain, because this is the foundation of your figures?

A. Well, if hearsay testimony is not competent I would not be

able to say.

Q. So you are unable to make an explanation?

A. Except upon information I gathered in consultation with

men who were qualified to pass on that."

Q. Now, Mr. Nay, in view of that testimony, do you think it is fair to say that an accountant has filed a statement and he had no information or no means of obtaining information upon, when he says here he took that figure not from personal knowledge but from information received from men whom he believed to be qualified to pass upon it?

Col. Moore: Is not that maintenance of equipment. There is only one 50% added on to maintenance of way.

Judge Hill: It is on page 576 I read from.

Col. Moore: You refer to his adding an additional 50%.

Judge Hill: You questioned him about both those propositions and he answered them both, that he gathered it after consultation with men he relied upon as competent to pass on it and not from personal knowledge.

A. Well, what I said is this:

"A. Making an arbitrary assumption, without anything to base it on, might or might not lead to true results, and is more apt not to, I should think."

Q. But that answer, taken in connection with the way the question was put to you, would indicate that the accountant had 4736 filed this statement as an arbitrary assumption; that he had

no information or any means of obtaining information upon

the subject.

Now my question is, do you think you, in answering the question in the way you did, and the question itself, was a fair criticism, in view of this testimony?

A. I think so, yes, sir.

Q. Have you any knowledge yourself, personally, from your own knowledge, of the extra cost of handling state over interstate business?

A. Now, just what do you mean by that? It is switching we are

talking about.

Q. No, I mean the broad proposition of extra cost of state over interstate business as has been testified to in these rate cases as being three to seven times: Have you personal knowledge, yourself, of that proposition?

A. I have personal knowledge of the fact that a shorter haul involves a greater expense than a longer haul; and that it costs more to handle less than carload business than carload business, and things

of that kind.

Q. Why, certainly.

A. And that the average length of haul for intrastate business is much less than the average length of haul of interstate business.

That is a matter of record.

And coupling that with the first statement, that the shorter haul is more expensive than the longer haul, as the average haul for intrastate is less than for interstate, then the intrastate business must be the more expensive.

4737 And as the greater percentage, ordinarily—it is true in the case of the Iron Mountain—of the traffic of the intrastate business, consists of less than carload business, than is the case with interstate traffic, it follows that—

Q. Without going into the details, Mr. Nay, have you an opinion of your own from your own knowledge, as to the extra expense of

state over interstate business?

A. As to the entire percentage, no, sir, I have not.

Q. You rely upon the opinions of the operating men in whose judgment you have confidence?

A. Yes, sir. I understood your question, but I have some knowledge on the subject.

Q. I say, as to what this extra cost is.

A. Yes, sir, and my answer gave some of the knowledge I have. But I do not claim to have sufficient knowledge of the details of operating conditions to say that the percentage should be so much.

Q. That is what I had assumed from the stand you had taken?

A. Yes, sir.

Q. You made up statistics in this case—at least they were made up under your directions

A. In which case do you refer to?

Q. In these various rate cases, when your road has been involved in them?

4738 A. Yes, sir.

Q. And you have added 150 and 250 and various other percentages there upon the opinions of operating men, haven't you?

A. Yes, sir.

Q. Of which you had no personal knowledge but which you derived from men in whom you have confidence and who have knowledge of the subject?

A. Not exactly that.

I testified I had some personal knowledge of these conditions but

not sufficient to determine the percentage.

But that additional percentage is based upon the testimony of men in whom I have confidence, as having had experience in operating railroads.

Q. But you do not seem to be willing to accord to Mr. Wharton the right to have that same confidence in the men whom he con-

sults, do you, Mr. Nay?

A. Well, I do not know the men whom he has consulted. As I

recall it, they were not named in the testimony.

Q. No, but you did not give in the testimony the names of the men you consulted when you made up your statistics. You consulted with men in whom you had confidence and it is fair to assume that he consulted with men in whom he had confidence—because he said so.

A. I stated these were men of long years of operating experience

in railroading.

4739 Now, I do not know whether it is the same class of men Mr. Wharton consulted or not. He consulted with Mr. Ham-

ilton and others.

Q. He says "who were qualified to pass on it." He may be mistaken in his judgment, as you may be mistaken in your judgment of the men you consulted; but when you have consulted men you esteemed as qualified to pass upon those questions and took their judgment upon it, don't you think you have acted fairly in doing so?

A. Yes, sir, but I have given candidly the experience of the men on whose judgment I based my figures. And as railroad men who have had operating experience have uniformly testified to this great increase of the expenses of state over interstate, it is hard to believe that men of the same experience and in the same line of business would testify to something entirely different.

Q. What Mr. Wharton testified to here was men who were quali-

fied to pass upon these particular items in question.

I have used the broader question to you as a general proposition.

A. What was the experience of these men?

Q. I don't know. He simply said, men whom he considered

qualified to pass upon this question of the extra switching and so forth.

When he has done that, do you think he is subject to the criti-

cism that this question and answer implies?

A. I think he should give the kind of experience the men 4740 have had in whom he reposed this confidence.

Q. Turn to page 444 of your evidence, Mr. Nay.

"You will find yard locomotive expenses divided on the pasis of double the number of cars handled in each class of service.

I don't know, so I am asking you the reason there could be for

that difference?

A. I don't know. One is based on the cars handled and the other on the car mile."

Did you look at the Cotton Belt exhibit on that same proposition as the Iron Mountain?

A. I do not know.

Q. That is on the basis of four where the Iron Mountain is two. And it is explained in there, as on account of the difference in the length of the baul. Do you remember that?

A. I think I do recall that.

Q. You seem to have treated that as if it were a question of state and interstate handling instead of a question of length of haul. I supposed you had misunderstood the purport of the exhibit there.

A. I do not believe I understand this.

In each case there seems to be 50% added for extra repairs and 75% added to the local mileage for extra mileage in repairs.

Q. I do not think that is the item?

A. I thought you said locomotive mileage.

(Examining paper.) That question and answer referred to the different bases used for locomotive and cars; the terminal yard switching-or, rather, to the repairs incident to yard work; being

divided on the basis of the cars handled, and the terminal 4741 repairs for freight cars being divided on the basis of car

miles.

He asked me if I could see a reason for that difference and I said I could not.

Q. In the record on page 444 you will find this question:

"Q. The state accountants have allowed double handling in ascertaining the expense of terminal handling of the cars, but they made no such allowance in the case of yard locomotives. Is there any reason for that distinction in your opinion?

You will find yard locomotives expense divided on the basis of double the number of cars handled in each class of service. I don't know, so I am asking you what reason there could be for that dif-

ference?

A. I don't know. One is based on the cars handled and the other

on the car miles."

I want to call your attention to the fact that that doubling is not for the purpose of helping that matter but to correspond to the length of the haul of the two, as shown in the Cotton Belt exhibit where the same proposition is handled on the basis of four, on account of the difference in the length of haul. Do you catch the point?

A. The length of the haul of the local and through cars?
Q. The average haul of the two trains in the Iron Mountain is practically the same as the division haul; and on the Cotton Belt it is practically double that. That has been explained in the evidence.

A. (After examining exhibits.) That does not give me any light yet as to why my statement should be questioned; be-4742

cause in the first place there are certain repairs to locomotives that were found to be assignable under that method to yard switching, yard service or terminal service, as it is called; and those repairs to locomotives were divided on the basis of the cars handled at terminal points.

Now, when it came to the question of similar repairs for freight cars, those repairs which they found were due to the terminal handling, instead of dividing them on the basis of the cars handled, they were divided on the basis of the car mileage modified by multiplying by two in the case of the Iron Mountain and I understand you to say multiplied by four in the case of the Cotton Belt.

The point I was making was, that I could not see why, if the basis of cars handled was a correct one in the case of repairs to locomotives, the same basis should not be used with regard to freight cars.

Q. Do you understand that that doubling there was due to the difference in the run, taking charge of it and so on?

1. No, sir, I do not understand why it was doubled.

Q. That is what I supposed from your answer.

The average run shown on these A. But the run is not double. statistics for local train is 63.10 and for through trains 70.8.

Q. I said a while ago it was nearly the same and that was about double?

A. Yes, sir.

Q. Mr. Nay, turn to page 445 of your testimony where 4743 you refer to station expenses under the general head of

"Transportation Expenses."

A. The paragraph reading "the large item of station labor, what we call platform labor, loading, unloading and checking, is in connection with the carload business"-that should read "in connection with the less than carload business."

Q. That is the point I was getting at. You are referring to the

less than carload business there?

A. Yes, sir.

Q. Your statement is that it is not fair to divide the expense on the basis of tons handled, including the less than carload business?

A. Including both less than carload and carload.

Q. Mr. Nay, in order to get the record straight I wish you would restate your proposition right there, will you?

A. My answer should have read like this:

"The tons that are included in the basis for this division, with the trans-state omitted, includes both carload and less than carload shipments. Practically all carload traffic is loaded and unloaded by the shippers and consignees, so the only item under the head of "Station Expenses" that refers to carload business is office expense, the expense of billing, recording and so on.

The large item of station labor, what we call platform labor, loading, unloading and checking, is in connection with the less than

carload business.

Therefore I do not think it is fair to divide the expense on the basis of the tons handled, including the carload business, be4744 cause a greater proportion of the state tons handled is less

than carload business than in connection with the interstate traffic. That being the case, the basis used does not charge a sufficient proportion of this expense to the state traffic, and charges too much to the interstate traffic."

What I am trying to say there is, that of the total state tons handled, a greater percentage is less than carload than in the case of

the interstate business.

That being the case, the basis used does not charge a sufficient proportion of this expense to the state traffic, and charges too much

to the interstate traffic.

- Q. Now, Mr. Nay, please turn to Exhibit 26 of the Iron Mountain Road; that is for October, 1907, and make a calculation (I think you can do it in a moment; you need not carry it out to its fine points) as to the state and interstate carload and less than carload tons.
- A. (After examining exhibit.) It looks as if somebody had figured it out for me in advance.
- Q. Better not take any doctor's figuring. We have all sorts of doctors here.
- A. It is shown that for the month of October, 1907, the carload tons of interstate freight, not including trans-state, were in round figures 270,000; and the less than carload 20,000, the less than carload being about 7%, as it is figured here (and it is not far from that).

For the intrastate the carload tonnage is in round figures 128,000; and the less than carload 8,000, or in round figures

6%, as it is figured out here.

Q. This difference between state and interstate on that proposition does not work out according to those October figures as you supposed, do they?

A. No, sir, they do not. This October figure shows that the conditions for the month of October, 1907, are slightly the reverse of

what I have supposed.

Q. Take the test month on the Cotton Belt, January, 1909?

A. (Examining exhibit.) This shows a similar condition, a difference of about 1%: 13% of the total interstate tonnage being less than carload and 12% of the intrastate being less than carload.

Q. So far as I know those are the only statistics in this case by which you can get a statement as to the comparative percentage of less than carload state and interstate tonnage. And taking the

only data we have in the case, your views here are based upon a mistaken premise on that point, are they not?

A. If these two months are representative of the entire period.

I would not recede from my view without having the figures for a

representative period.

Q. That is what I stated in my question. So far as I know—like your statement to the Interstate Commerce Commission—we have given you the best we have got, and that seems to be all there is in the case.

4746 A. No, sir, I beg your pardon. It is possible to get a whole year here, 1908 or 1909 or 1910, could have been compiled. But in the case of the Interstate Commerce Commission hearing we gave them the figures for 13 years and then up to the minute, so there is no parallel at all.

Q. The railroads could have compiled it, but in my question I say

I am putting before you all the data we had.

A. I presume the state could have compiled it, too.

Q. In the course of time, probably. But the state is not a moving party here, either. You have referred to that proposition several times in your testimony, not only on this proposition but in several others, I believe, as one of your reasons for attacking the correctness of these figures.

Q. If these two months are representative of the business of these two railroads in Arkansas, so much of your testimony as is based

upon the other proposition would be erroneous?

A. Yes, if those two months are representative of the entire business. But I would not believe that, though, until I saw the figures

for the entire period.

Q. Turn to page 448 of your testimony: You criticise the division of fuel expenses, using the percentage obtained in a test made on the Cotton Belt in October of 1908:

I want to read you the testimony of Mr. Doddridge on that point,

reading from page 107 of the record in this case.

4747 "Q. Fuel, I presume, is another one of the chief items as you worked that up in the Cotton Belt case. Would the actual figures you worked up on fuel cost between local and through trains on the Cotton Belt, apply generally on the Iron Mountain?

A. I presume that those proportions would be applicable in a gen-

eral sense to the Iron Mountain, or it ought to be.

Q. That is, you mean the relation in the cost between the two classes of trains?

A. They ought to be unless there is some difference in conditions

on the Iron Mountain that might change the relations.

Q. Do you know any conditions between those two roads (you have been general manager of both) that would change the relation of the fuel cost between them, as to the proportion consumed on the local as against the through, or the through as against the local?

A. I do not know of any conditions that would change those relations on the main line of the Iron Mountain as compared with the Cotton Belt—the Cotton Belt Railroad is mostly main line. The Iron Mountain main line is a very similar road through Arkansas,

as to grades and other things—I guess the Iron Mountain is a little better than the Cotton Belt, some parts of it—and of course, the Iron Mountain has other divisions, like your road from Little Rock to Fort Smith, that used to be very different from the Cotton Belt. I guess it has been improved now.

Q. It has all been improved. You must not indicate that anything going out of Fort Smith has not been improved, or we will have a

falling out.

A. In a general way the test on the Cotton Belt ought to reflect

the general average conditions."

Now, Mr. Nay, would not Mr. Doddridge, having served as general manager and having been in the operating department of both those roads, be better qualified to pass on that question than you are?

A. Was he general manager during these months?

Q. I think not.

4748 Col. Moore: Not for years before that.

Judge Hill: I understood he had the test made. Mr. Kimbell directed it. It was done at the instance of Mr. Doddridge and Mr. Doddridge testified that he understood the statistics of those two roads very thoroughly.

A. I would not like to answer that question direct.

But I still adhere to my view that no one month on the same road, and within the same period, can be taken as representative of the entire period. And to take a test made on another road in a month entirely outside of the period might represent far from the actual conditions.

Q. You do not agree with Mr. Doddridge, in other words?

A. No, sir; I do not.

Q. While we are talking about Mr. Doddridge, at page 91 of the

record he testified as follows:

He was asked how he would figure out the cost of terminal expenses on passengers (he is now discussing the passenger terminal matter, and a little later I will show he applied it to both passenger and freight) he was given a quotation from some testimony he had given in the Missouri case and was asked if that was correct and he said "no." The answer reads as follows:

"Since I made that statement I, of course, have gone into the subject further, and I don't think that covers all of the elements—

that is what I am getting at.

Q. What method have you got that got at that terminal expense,

if you cannot take this method?

A. I find among my memorandums a method that we designed for that purpose, or formula. I did not give it in my reasons, because the information necessary, upon which to predicate it, is absent, but I will read the example; it is self-ex-

planatory:

Take the St. Louis Southwestern Railroad for the year ending June 30, 1908; they carried 928,313 state passengers; double this number to compensate for two station handlings. The number then indicates ninety-two percent of the total passengers handled.

The interstate passengers handled were 145,351; allowing one

handling for each passenger, this constituted 8% of the terminal cost.

The intrastate passengers produced 55 percent of the passenger miles and should be charged with 92% of the terminal expense.

Now, if you know the terminal expense in dollars and cents, it is a very easy matter to arrive at the extra cost, on that account,

per passenger-either class of passengers."

And further on, at page 96, he testified he would substitute the ton for the passenger, and apply the same principle in freight traffic, and I ask you what you think of that as a fair method for determining terminal expenses?

A. For passengers.

Q. Yes, and then for freight. He applied the same principle in

both cases.

A. By "terminal expenses" do you mean station expenses just now? Because I understand you divide station expenses only on the basis of tons.

Q. That is true.

Col. Moore: You read on page 91?

Judge Hill: I did not read it but just referred to what was said there.

4750 Col. Moore: Then you should call Mr. Nay's attention to

what he said on page 92, as follows:

"Q. You think that is a good, fair basis for ascertaining the extra

terminal cost for passenger service?

A. It would be somewhat more than fair to the state, for the reason that there is a certain percentage of these 145,351 passengers that do not make any terminal expense at all in the state.

Q. It is the best method on the subject that you know of, isn't

it-better than this Missouri method, or any other?

A. I think so; this is the result of the reflection and consideration, and this shows it figured out to a conclusion, using hypothetical figures, that the state terminal cost upon this road, and, based upon these statistics, amounts to ten to one."

Judge Hill: That is what it amounted to on the Cotton Belt?

A. That does not change my mind any. I still think if you get a less than carload business for a representative period there would be more of it.

Q. I am not asking you about that. I am putting this proposition

to you

On Mr. Doddridge's testimony here, if you agree with his method of dividing the terminal expenses, both passenger and freight, by doubling the station expenses in that terminal handling?

A. I understood we had already gone over the freight expense before, and that is the reason why I stated I have not changed my

mind on that.

Q. What do you say on passenger?

A. I say the same as in direct examination, that there are certain trans-state passengers included in there that involved no station expense at all; and this method does not assign enough to the state.

Q. You do not agree with Mr. Doddridge?

A. I do agree with him. He pointed out the same thing.

Q. He said, taken altogether it was the best he knew on the subject?

A. I think his own answer indicated that a better method would

be to eliminate the trans-state passengers.

Q. While on that subject let me tell you about some of the evi-

dence in this case:

Memphis is treated as an Arkansas point in this case. The expense is all charged up to Arkansas. Of course, all the travel is interstate and from Memphis to Texas would be called transstate.

A. From Memphis to Little Rock is interstate.

Q. Yes, and the expenses of Memphis are treated as if incurred in Arkansas.

A. That is by some arrangement between you?

Q. No, sir. I have been kicking against it and am still kicking. It is by "force of arms" that that is in here in that way. But those are the facts, there is no dispute on that point, and that the traffic from that point is interstate traffic.

The same thing is true of Fort Smith, but to a lesser extent. Two passenger trains, run over the bridge which makes it interstate. All of the freight traffic is interstate as they do not use the bridge at all for the freight but only for the two

passenger trains.

So far as the Cotton Belt is concerned I believe the yards in Texarkana are in Texas: isn't that true Mr. Kimbell?

Mr. KIMBELL: Yes, sir.

Q. You know the travel out of Texarkana on the Cotton Belt and out of Fort Smith and Memphis on the Iron Mountain would be a large volume of traffic.

Col. Moore: You mean trans-state?

Judge Hill: I am speaking of the traffic. It would be all interstate or trans-state and as to all of it there would be two terminals in Arkansas and on trans-state there would be one, out of each of these points.

Would not those facts modify to some degree at least, your objec-

tion to this method?

A. Yes, sir, that would modify it to a degree. But what I had in mind when I spoke of trans-state—I did not have in mind particularly Fort Smith or Memphis or Texarkana, but passengers from St. Louis to Texas points.

Q. I understand that. And that is why I call your attention to the local conditions and ask you if those local conditions would

not modify your position?

A. Yes, sir, but there would still be certain trans-state passengers in these 145,000; say passengers from St. Louis to San Antonio or from the southeast going into Oklahoma.

Q. Of course there would be some, but in these there would be the interstate passengers from Fort Smith and Memphis to Little Rock that would have two handlings under this method of accounting and they are only charged with one.

A. Possibly those might offset each other so the difference would

be "negligible".

Q. If anything it would be in favor of the state. There is a pretty heavy travel out of Fort Smith and Memphis and Texarkana, as you know, don't you, Mr. Nay?

A. Especially out of Memphis and Fort Smith.

Q. Did you say that the stuff from the southeast to Oklahoma would be trans-state? That would get a Memphis handling, too, wouldn't it?

A. Yes, sir, say from a point like Nashville, Tennessee, to

Oklahoma, that would certainly be trans-state.

Q. It would go through Memphis?

A. Yes, sir.

Q. And would have one terminal handling in Arkansas, so far as this case is concerned?

A. Yes, sir, I see your point-no, there would be no terminal so

far as station expense is concerned.

Q. All Memphis station expenses are charged up as if incurred

in Arkansas?

A. I know, but the passenger does not incur any station expense in Memphis. He buys his ticket at Nashville, and gets on the sleeper and stays on there until he gets off in Oklahoma.

4754 Q. Do you know of any through trains from Nashville.
Tennessee, to Oklahoma through Memphis, in that country?

A. I am not familiar with the situation but I know there are sleepers on the run there, that do not stop at Memphis. There is one that starts from Chicago and goes to Hot Springs.

Col. MOORE:

Q. What terminal service would be get?
A. He does not get any station service.

We are apt to get confused between those termed "terminal expense" and "station expense". Station expenses are the wages of the agent and ticket sellers, and baggage, checkers.

Q. And for the heating and lighting of the station?

A. I don't know whether that is a station expense or not. I do not know whether you have included that in station service or not.

Judge HILL:

Q. Have you, Mr. Johnson.

Mr. Johnson: Yes, sir.

Q. And cleaning? You have to clean that station. You have the porters, watchmen, guards and all that sort of thing. This fellow gets some benefit of that delightful Memphis station, does he not?

A. Some, but it would be pretty small. I think.

Q. About the only thing he would not get would be another ticket

and probably rechecking his baggage: isn't that about the only difference?

A. I don't know what he would get under "station serv-4755 ices" at Memphis. He would get out on the platform, out

of one car and into another car.

The train conductor, the brakeman, or the train porter would probably assist him off and show him what train to go on. I do not think he would get any benefit of the station expenses at Memphis.

Q. You testified, I believe at page 474, as follows:

"I heard the testimony of some of these same witnesses in the Missouri Case and it was to the effect that the extra cost of state over interstate business on a ton mile basis would vary from 10% mini-

mum, to 50% maximum.

Now, this compilation presented here, which is complicated and produces a result which shows 86% increase cost, indicates that the state's witnesses realized that they were mistaken in the Missouri Rate Case in putting the extra cost so low. But it is still below what the railroad operating men testified to."

I call your attention to the fact that Mr. Ludlam (and I think he is the only one who testified in both cases) said he had made that estimate in the Missouri Case and that he thought it was still true, that there was a difference in the conditions in Missouri and Arkansas. Isn't that a fact? You said you had read his testimony?

A. I do not recall that, Judge Hill. Of course, the record would

show it.

But there is such a mass of testimony in this case that I hope I would be pardoned if I do not remember everything exactly as it was.

Q. It seems to me when you go to quote anybody it would probably

be better to quote him exactly.

A. I think I have quoted him exactly in the Missouri Case. 10 to 50 and I think probably he was pretty easy on the 50;

he thought that was probably too high.

Q. Isn't it further true that they have not produced this 86% as being the exact increased cost but merely the result of calculating according to this formula in which they say (whether you agree with them or not) that they have used the maximum and if that was true it would indicate that the actual conditions would be less than the 86%, wouldn't it?

A. Yes, sir, if it is a fact that they had used a maximum in every

case.

But I think an analysis of their figures would indicate they had not used the maximums in every case.

Q. Yes, I know the doctors have disagreed on that proposition.

Turn to page 479 of your testimony. You say at the bottom of that page:

"Again, the car miles in local trains, which carry no Pullman cars, are treated just the same as those in through trains which do carry Pullman cars:"

Are you familiar with what are local and what are through trains

on the Iron Mountain?

A. No, sir, I cannot say I am.

Q. Are you under the impression that the local trains do not

carry Pullmans on the Iron Mountain road?

A. I am under the impression that they run many local trains that do not carry Pullmans. I am sure of that, because I have ridden on some of them.

Q. The evidence in this case on behalf of the railroads, 4757 put in by Mr. McPherson, is that there are eight through trains on the Iron Mountain and 48 locals:

Isn't that right, Mr. Johnson? Mr. Johnson: I know it is eight through trains.

Q. Eight through and forty-eight locals.

And of those through trains, one of them is the fast mail that

carries just a sleeper and no other passenger coaches.

I do not know exactly how many of the locals carried Pullmans in 1907, but approximately it was thirteen. I may be off one or two trains on that because I have not a timecard for that period. I looked at the timecard of a more recent date and it was 15. But I presume that is approximately correct.

So there are really eight through trains carrying sleepers and

13 local trains carrying sleepers:

Would not that modify materially the objections you have made to some of these divisions?

A. It might be that those local trains that carried sleepers are the kind I have in mind as through trains.

Q. This information is given in Mr. McPherson's Exhibit 46? A. There are trains included in this list of local trains, which I

had in mind as through trains. (Witness refers to Exhibit 46).

Q. That is what I supposed.

A. For instance, "Number 8 from Texarkana to the state line a run of 305 miles": That is the kind of train I had in mind as a through train.

Q. Now, after seeing that exhibit, Mr. Nay, don't you think the state was justified in carrying forward a division between local and

through trains?

A. No, sir, I cannot say so, Judge Hill.

They might possibly have adopted a different term-after looking at this statement the short runs which is really what the local train is, it is a short run which serves each station on the run.

Now, if a division had been made of some class of passenger trains,

short trains which serve each station on the run.

Q. But you see the division the railroads made of it. did not make that division.

A. I understand that. And the railroad did not make any division between local and through expenses.

Q. They gave a great deal of testimony.

A. Did they?

Q. Yes, a great deal as to the difference between the local and through.

A. I have not seen that.

Q. And, so we will have no misunderstanding as to what was local and what was through, we asked Mr. McPherson to file an exhibit of what was local and through, and this exhibit 46 was the result of that request.

That is an entirely different situation from what you 4759

thought it was when you gave your testimony, isn't it?

A. It is different in this way: Mr. McPherson's classification of local and through is not the same classification I had in mind.

Q. That is what I supposed.

A. But it would be just as easy to work up the figures on the classification I had in mind as it would on Mr. McPherson's classification.

Q. But unfortunately we did not have your classification and we

did have Mr. McPherson's.

This statement I have called your attention to on page 479 would

lose its force, wouldn't it?

"Again, the car miles in local trains, which carry no Pullman cars, are treated just the same as those in through trains which do carry Pullman cars; and that works an inaccuracy, because it does not assign a sufficient proportion of the expense to the traffic carried in local trains, although no division has been attempted here between through and local."

A. You will notice I said "local trains that carry no Pullmans": that expression indicated that I understood that some local trains

did carry Pullmans.

Q. I did not so understand you.

A. You will find from the expression it is so worded.

Q. I understood you to mean local trains carried no Pullmans and that through trains did carry them.

I might have misunderstood but that is the impression your testi-

mony made on my mind.

A. I think you will find it is not so.

4760 Q. I do not care to discuss it if you say that was your intention.

A. I intended to say the locals that did not carry Pullmans, because I had in mind the fact that some did carry Pullmans.

Q. But the fact that more of the locals did carry Pullmans than you supposed would change your opinion, would it not, on the point in which you criticised the exhibit on the Pullman proposition?

A. No, sir, I don't think so, because I had in mind the fact that

some of those locals did carry Pullmans.

Q. Some of those locals did carry even three Pullmans—that Texas train for instance.

Col. Moore: Where did you get the information that some of the locals carried three Pullmans?

Judge Hill: From the time card. I have already stated I did not have a time card of that period but a recent time card.

Col. Moore: Do you recall what local carries three Pullmans? Mr. Hamilton: It is Number 8.

Mr. Johnson: It is the local train from St. Louis to Texas.

Judge Hill: It is the one that is listed as 305 miles through the

state of Arkansas and the time card I examined shows three Pullmans

4761 Col. Moore: Isn't that an interstate train?

Judge Hill: Not according to Mr. McPherson. He did not divide between interstate and state. He divided between local and through.

Col. Moore: If it is from St. Louis to Texas it is not a local Ar-

kansas train, is it?

Judge HILL: None of those Memphis trains are local.

Is not my information about the Texas train correct, Mr. Johnson? Mr. Johnson: I don't know how many Pullmans it carries.

Judge Hill: A recent time card shows it had three. I don't know whether that was true in 1907 or not.

Previous question read to the witness as follows:

Q. Some of those locals did carry even three Pullmans—that Texas train for instance?

A. I don't think so. Because the fact that they carry Pullmans

would indicate they were doing interstate business.

The state's witnesses have estimated 25% only of all passengers carried in Pullmans to be state passengers; and another reason is that the trains I had in mind were those local trains that do in my judgment the majority of the state business, and that carry no Pullmans. Those were the ones I had in mind.

If a separation had been made between those trains that carry no Pullmans and do this local business, stopping at every station; and on the other hand including the trains that do the through

business, whether they are classed as local trains in this exhibit or not, the effect of that kind of a separation which in

my judgment would be similar to the separation between the two kinds of freight, would have thrown a greater proportion of the expenses into the state traffic than is thrown by the method of consolidating them.

Q. But if you would use the method of division Mr. McPherson has used, of local and through, that would not be the case would it?

A. It would not be the case to such an extent, Judge Hill; but I think even using the division he uses would assign a greater proportion of expense to the state than is assigned by the consolidation plan.

Q. I notice, Mr. Nay, you and Mr. Ludlam have differed very widely as to the application of the revenue theory, and have exchanged compliments on the question of whether a "snow man" has been set up and knocked down. I would not question you doctors of accountancy on a proposition of that kind, but I just want to ask you this:

As I understand your testimony, in the final analysis the revenue theory has to be supplemented by the testimony of operating men as to the cost of intrastate over interstate operation, so what need is there to use the revenue theory at all, if the testimony of these operating men is to determine the final analysis.

A. Well, the revenue theory is needed to make the first sepa-4763 ration of operating expenses between state and interstate

traffic.

Q. If that is going to be determined upon the opinion of the operating man; why need to make that separation?

A. I do not see how you can figure it out without some basis of

separation.

Q. But the separation, after it is obtained, as I understand it, is of no value until supplemented by the opinion of operating men: Is not that the substance of it?

A. That is Mr. Ludlam's opinion. It is not mine.

Q. I am asking if that would not be the substance of your opinion, where you say you have supplemented the division on the revenue

theory by the testimony of the operating men?

A. Well, I don't understand Judge Hill, just what you refer to. I stated in the very beginning, I guess it must be six months ago, that there could be no actual separation between state and interstate of operating expenses, for the reason that the traffic is carried on the same trains and in the same cars by the same train crews, handled by the same agents and same laborers, over the same track, and all that sort of thing; so it could not be actually separated.

But some traffic costs more than other. Some kinds of traffic—that is some kinds of state traffic; carload traffic costs less than less

than carload. Short haul costs more than long haul.

The revenue reflects those different conditions of cost and therefore, the revenue basis was the better basis or the best basis, because I know of only three, for making the first separation, before adding the extra cost.—

Q. Now, if you will allow me to interrupt you there, my point is

this:

If the question of ultimate cost of state over interstate is to be finally determined by these operating men, why not settle it arbitrarily by three times or five times. What is the use of separating it on a factor you are not going to use?

A. You have to have something. You say "five times as much" and you cannot say five times as much without something on which

to base that.

Q. You stated in your testimony that they did not base it on the revenue but just said "five times as much" from their standpoint. They are not using the revenue basis, are they?

A. No, sir. As I said, candidly, they are thinking of the tons and

ton miles.

4765

The tons cannot be used because that does not take into consideration distance at all. The ton basis takes into consideration only the weight.

The ton miles adds only one more element, and that is distance.

The revenue basis combines all the elements of cost for getting the original sub-division. There must be an original sub-division because you cannot say five times as much without with the course way for times as much without with the course way for times as much without with the course way for times as much without with the course way for times as much without with the course way for times as much without with the course way for times as much without with the course way for times as well as the course way for the course way for

cause you cannot say five times as much without saying five times as much as something.

Q. You say they are not using the revenue basis, and they are saying five times that?

A. Yes, sir.

Q. And as I understood your argument for the revenue theory, 131—813 it took, either consciously or unconsciously, the question of cost into consideration?

A. Yes, sir.

Q. If cost is not taken into consideration you have to depend upon the opinion of these operating men; and if cost is already taken into consideration why do you need to do that; isn't that a fact?

A. If the entire difference in cost was taken into consideration in

the rates, yes that would be a fact.

Just as I said in my testimony, if in the commercial business a thing costs three times as much as another, it should sell for three times as much.

If the state business costs five times as much as interstate, and the

receipts are five times as much, of course, that would end it.

Then the revenue basis would be conclusive, without any addi-

tions.

Q. But the point you make is that the cost has been taken into consideration but it has not been sufficiently taken into consideration: is that about the idea?

A. That is the idea. Due very largely-

.Q. This deficiency of the cost is a question that must be supplemented not from any records but from the opinion of

operating men?

A. Yes, sir, from the opinion of operating men, and that deficiency of cost is not taken into consideration because the rates have been reduced or fixed—in many cases by statute or Commission, without any refrence to the cost at all.

Q. And by commercial conditions and competitive conditions,

without any reference to cost at all?

A. I would not say "without any reference to cost, no, sir.

Redirect examination.

By Mr. MOORE:

Q. Mr. Nay, what was the main object of the classification of railroad accounts prescribed by the Interstate Commerce Commission: was it not to bring about uniformity in railroad accounting, more than anything else?

A. That I think was the prime object, to bring about uniformity.

Q. Counsel for the state questioned you in connection with the lap-overs from month to month, in the freight handled, and the manner in which such accounts are kept of the freight movements in the Auditor's accounts.

He assumed state and interstate freight moved co-incidently, and

asked you questions based on that assumption:

4767 I wish you would look at the statement filed by Mr. Roth in this case yesterday of freight traffic on the Missouri Pacific System, as a whole; and the Iron Mountain intrastate in Arkansas, by commodities, showing the tons one mile and the revenue earned and the percentages of the total. That is the heading of it.

State from an examination of that exhibit if it is true that com-

modities moved coincidently in state or interstate traffic, or in the

state of Arkansas, intrastate, called "company traffic"?

You will find this column to which I call your attention is the percentage of the different commodities on the system, and over here (indicating) is the percentage of interstate business.

A. No, sir, the percentages are quite different.

As for example, the percentage of total tons one mile for the system of grain is 13.43% of the total of all commodities; while the intrastate tons one mile in Arkansas of grain is only 1.56% of the total of all the intrastate commodities in Arkansas.

All the way through there are similar disparities between the percentages of the tons one mile for each commodity for the system

and the percentage of tons one mile in Arkansas.

Q. From a comparison of the percentages that appear upon that sheet, what is your judgment as to the coincident movement of the system and intrastate traffic in Arkansas? 4768

A. I would say they do not move in the same relative pro-

portion.

Q. Mr. Nay in the investigation that has been going on before the Interstate Commerce Commission and in which you testified and prepared some statements to which your attention has been called on cross-examination, the railroads were contending, weren't they, that the expense of handling traffic has been continually increased for a number of years?

A. Yes, sir.

Q. And that it had increased out of proportion to the revenue that is, more largely?

A. Yes, sir.

Q. That was the matter of contention there?

A. That was the basis of their contention, Judge Moore.

Q. And the statements to which you referred covered several vears?

A. The statements I submitted covered 13 years.

Q. As I understand the particular purpose of that was to show that the expenses had been increasing during that period more largely than the revenue had increased?

A. Yes, sir. Those statements showed, briefly, this: That from the beginning of the period up to the year ending June 30, 1907, there had been increases in expenses all along due to increases in wages, increases in prices of material, that were offset very largely by increased train haul and increased carload; that is, increased effi-

ciency, so that up to that point, the railroads were able to overcome the increases in operating expenses by increasing their 4769

train loads and carloads; that is, increasing their efficiency. But that since 1907, during the last three years, the increase in operating expenses have gone on just the same, that is, wages have increased, but the increased efficiency seemed to have reached its maximum in about 1907, and the train load today is not much more than it was three years ago; and the carload is not much more.

On the Rock Island, as I recall, it is slightly less, in each case.

That being the case, the necessity for more revenue was apparent to meet largely the increases in wages.

Q. Had there been a recent increase in wages?

A. Yes, sir. Increases have been granted on the Rock Island within the last year that will aggregate more than \$1,000,000 per

annum increased pay to the employees.

Q. Would not the period of time you used, seven weeks, I believe, to which your attention was called, for the purpose of showing the relation of expenses to revenue, reflect to an extent that recent increase in wages?

A. Yes, sir. The seven weeks, however, Judge Moore, covered only revenue. We did not have the expenses for the last three weeks. We had the expenses for only one month, but the statement showed an increase of expenses of nearly \$300,000 for the month of

July, with a decrease in the revenue.

Q. Did that reflect the effect of the recent increases in wages? I mean the effect of that increase in wages upon the

revenue of the company?

A. Yes, sir, a part of that increase, but not all of it, was due to increase in wages. Part of it was due to the increase in the price of coal. We had a coal strike on, which was compromised about the first part of September—at any rate the early part of September, which resulted in an increase of wages to the miners that our operating men say will cause a permanent increase in the price of coal of about 15 cents per ton. That was their testimony in that interstate case.

Q. As I understand you, your purpose in introducing these exhibits was to show the relation between the increase in expenses, including the wages, prices of materials, and so forth, and the de-

crease in revenue of your company?

A. Yes, sir.

Q. It did not require a comparison between periods to do that. Did not the application of increased cost of your traffic, with the showing of the revenue made, demonstrate that or tend to do that?

A. Yes, sir. For instance, if there was an increase in the wages of switchmen, which there was, and which amounted to as I recall it something like 8%, you know without taking any period into consideration that the wages for switchmen after that are going to be 8% more than they were before, with no additional service and no additional revenue derived.

4771 The purpose of that exhibit for one month of July, for operating expenses, revenue, taxes and so on, and for the three weeks, was to offset the statements that were being made that the country was now in such a prosperous condition that our earnings

were ample for all our needs.

And I was giving the information up to the very latest available

date to show that was not the case with the Rock Island.

Q. Were statements of that kind furnished by all the lines concerned in that investigation?

A. I do not recall. I was not present at all of the hearings.

Q. You do not know about that?

A. No, sir.

Q. You stated on cross examination that the Interstate Commerce Commission had taken the months of March and September for some purpose in connection with revenue:

What was that statement? I do not recall it exactly?

A. That was a statement in connection with this interstate rates case, where we compiled figures showing increase in revenue due to

the proposed rates.

You understand the railroads had proposed to increase certain rates on commodities and had filed their tariffs with the Interstate Commerce Commission, showing those increases. Those tariffs were suspended pending this hearing.

The railroads were continuing to charge the old rates.

4772 What we did was to take the business of those two months, September, 1909, and March, 1910, and draw it all off in detail, from and to stations and apply the old rates that were in effect at that time and compute those in one column and then apply the new or proposed increased rates and compute that in another column; and subtract one from the other, to find out what the increased revenue would be, assuming that the shipments would have moved just the same under the increased rates as they actually did under the old rates,

Q. Is there any other way you can get at the increase in rev-

enue?

A. No, sir. No other way by which it can be done, accurately.

Q. You stated on cross examination that the revenue does not represent the expense of maintenance of way, any more than the car miles:

Do you mean by that to say that that expense is not represented by either?

A. Yes, sir, I mean that neither one causes the expense.

Q. That class of expense is shown by the evidence in this case to grow largely out of causes other than operation: The testimony shows that 75 to 90 per cent of it is caused by the elements and other independent causes:

Now, in that view there is no connection or relation between that and car miles to the extent that it is not caused by operations.

That is true, is it not?

A. Yes, sir. Q. You have already stated that?

A. Yes, sir.

4773

Q. If it is true, it is more or less of an overhead expense rather than direct expense of transportation, is it not?

A. Yes, sir, I should think it might very fairly be treated as

an overhead expense.

Q. If you had to divide it on some other basis I believe you stated it is your view it should be divided on the revenue basis?

A. Yes, sir.

Q. But if you had to plan some other basis than the revenue, what basis would you take? How would you treat it?

A. My second choice would be to treat it as an overhead expense and divide it on the basis of the direct expense.

Q. I believe you stated that the last half of the year produces

larger returns than the first half?

A. Yes, sir, that is, the last half of the calendar year. Q. You mean the last six months of the calendar year?

A. Yes, sir.

Q. If you were undertaking to ascertain the results of a year's business, and you had ascertained the business of the last half, would you say the first half of the fiscal year, running from July to

December, would you think it proper to ascertain the net 4774 return for the year by doubling the return you counted for

the first six months?

A. No. sir.

Q. You think allowance should be made for the difference in the return produced in the two different periods?

A. Yes, sir.

Recross-examination.

By Judge HILL:

Q. Please look at statement 3 (b) Exhibit 8, the corresponding one you will see is for the six months ending December 31, 1907, and the other is for the period ending June 30, 1907:

Please state the gross operating revenue and expenses for those

two periods?

That is for freight, I understand?

A. This shows operating expenses, maintenance of way and structure and so on.

Q. It is summarized. Give the gross revenue and operating ex-

penses?

A. This shows the gross freight revenue in the state of Λrkansas for the Iron Mountain Railroad, for the six months ended December 31, 1907, \$4,896,272.91.

Operating expenses, \$3,253,034.86. Net operating revenue, \$1,643,238.05.

Q. Now turn to the corresponding figures in the other statement,

Number eight.

4775 A. This shows the results for the Iron Mountain in the state of Arkansas for the six months ending June 30, 1907: Freight revenue, \$4,729,412.64.

Operating expenses, \$2,795,474.37. Net operating revenue, \$1,933,938.27.

Q. Those figures do not agree with the opinion you expressed a few moments ago, do they?

Col. MOORE: Get the Cotton Belt figure before answering. Judge Hill: Let us get through with one at a time.

A. What opinion do you refer to?

Q. That the last half was the better half of the year.

Col. Moore: He would better have the other figure before him. Judge Hill: He can have both before him.

Col. Moore: Here are the Cotton Belt figures for the last half of 1907 and the first half of 1908.

Judge HILL: I should like that separately. Take up this one

first:

What do you say to that?

A. (After examining figures.) That shows a greater operating revenue during the six months ending December 31, 1907, than during the six months ending June 30, 1907.

But it shows less operating expenses for the six months ending June 30, 1907, than for the six months ending December 31st.

Q. The net result was better on the first six months?

A. Yes, sir, that is true.

4776 But I do not think that would be true from year to year. Q. Now you may put in the Cotton Belt figures if you wish:

What figures are you putting before him, Mr. Kimbell? A. The last half of 1907 and the first half of 1908.

Judge Hill: That is the year the panic came on. You are not going to treat that as a normal period, are you? If you have the figures of the Cotton Belt for the first and the last half of 1907 I shall be glad to have you put them in; but I do not think that it is fair to put in the figures of the last half of 1907 and the first half of 1908.

Col. Moore: If you would rather I did not have it go in now

I will wait and ask him that later.

Judge Hill: You may have it in now, but I want to put in that objection.

A. It is the Cotton Belt revenue and expenses for the six months ended December 31, 1907 for the state of Arkansas:

Freight revenue, \$1,795,355.49.

Operating expenses, (this includes taxes and rentals) \$925,594.20.

The net in round figures \$870,000.

For the first six months ended June 30, 1908 the similar figures would be:

Freight revenue, \$1,431,374.07. Operating expenses, \$859,680.85.

The net being in round figures \$572,000.

4777 For the six months ending June 30, 1908 as compared with the net of \$870,000 for the six months ended December 31, 1907.

Q. Would you regard the first half of 1908 as a fair period to

compare with?

A. I think about as fair as to take the last half of 1907 and compare it with the first half of the calendar year 1907, because the panic began the latter part of October, 1907.

Q. I understood from these operating men that it did not affect the freight business until along about the last part of December or January of the next year: is not that your information about it?

A. That is not my information on the Rock Island. On the Rock Island the sluzup showed up in November.

HUBERA ROTH, recalled, testified as follows: 4778

Direct examination.

By Col. MOORE:

Q. What is the mileage of the Missouri Pacific, including the Iron Mountain? A. I have not the figures right here, Mr. Moore. I cannot say,

off hand.

Q. You will put that in?
A. Yes, sir, I will prepare that. It is about seven thousand miles.
Q. It is about seven thousand miles, is it?

A. Yes, sir. Q. In what states does the system operate?

A. I think it is eight states.

Q. How far westward does that system extend from St. Louis?

A. As far as Pueblo, Colorado. Q. What is the distance? A. 903 miles, I think it is.

Q. How far does it extend in Nebraska, to Omaha?

A. To Omaha, but I do not think that is the furthest point. I think Prosser, Nebraska, is the furthest distance from St. Louis.

Q. What distance is that from St. Louis?

Judge Hill: Why do you not file a map, if you want to get in physical characteristics of the Missouri Pacific System?

A. Prosser is 601 miles from St. Louis. 4779

Col. MOORE:

Q. How far does the system extend west from Fort Smith? A. West from Fort Smith? I have not the exact distance on

that. Q. State it approximately. I do not care whether it is exact or

not.

A. From the Arkansas State line west of Van Buren it is 789 miles to Pueblo. That would be the longest distance.

Q. And how far from Fort Smith to Omaha, or the end of the

line in Nebraska?

A. To Omaha would be 559 miles and to Prosser, Nebraska, 665 miles.

Q. Was there any mileage added to the Iron Mountain Railway in Arkansas between 1907 and 1909, inclusive, both years?

A. No, sir.

R. E. Kimbell, recalled, testified as follows: 4780

Direct examination.

By Col. Moore:

Q. I wish you would state what the mileage of the Cotton Belt System of railroads is?

A. I don't believe I can give you that accurately. About 1558 miles, as I remember it. That includes the Texas line.

Q. Is the Texas line a part of that system?

A. It is a separate corporation and operated separately.

Q. What is the line north of Arkansas? A. The line north of Texas, you mean? Q. No, north of Arkansas I want.

A. It is very little.

Q. I want to know what it is?

A. We operate 152 miles in Missouri and under joint trackage rights 138 miles from Thebes Bridge to St. Louis. That comprises all of the line north of Arkansas.

Q. That is your line from St. Louis to the Arkansas line?

A. Yes, sir.

Q. And that is all you have north of the state line of Arkansas?

A. Yes, sir.

Q. Is that a compact system or is it a scattered system? A. I should call it a small system and somewhat compact.

Q. How does it compare in compactness with the Missouri Pacific System?

4781 A. It is vastly different.

Q. Is the Missouri Pacific System compact or scattered? A. The Missouri Pacific System, as shown by the map, is a very scattered system.

Q. How many states does the Cotton Belt System operate in?

A. Illinois, Missouri, Arkansas, Louisiana, and Texas; five states. Q. In Illinois and Missouri is the line from the northern border of Arkansas to St. Louis, Missouri?

A. Yes, sir.

Q. And that part in Illinois is where it crosses the Thebes bridge?

A. Yes, sir.
Q. You have filed an exhibit in this case, showing the earnings and return on the Cotton Belt property in Arkansas for the last half of the year 1907:

How would the return for that part of the year on that line compare with the entire calendar year of 1907, in your judgment?

A. We had no-

Q. You are unable to compare them? A. No, sir, not without a great deal of labor.

Q. From your knowledge and information in the Auditing Department of that road, what is your judgment as to how it would comp re?

A. I am familiar in that respect with the net earnings.

Q. Well, the net earnings?

4782 A. The net earnings for the last six months of the calendar year on our line, approximately, under normal conditions, is 20% greater than the net earnings for the first six months.

I will say approximately, because I have no definite figures on

that subject right now.

Q. Has there been any addition made to the mileage of the Cotton Belt line in Arkansas since 1907?

A. No, sir.

Q. Exhibit G filed by you, I think at the request of the state, showed an increase of 96.1% in interstate revenue between January, 1909 and the six months ending December 31, 1907, which was explained by you as due to the shifting in the character of the tonnage handled, and as not brought about by a change in the rates:

Have you prepared a statement showing the revenue under the current rates from November 1, 1908 to January 1, 1909, and the

Commission rates?

A. I have.

Q. Will you file that as an exhibit in this case and make any statement you wish in explanation of it?

A. Yes, sir.

Col. Moore: We offer in evidence the statement prepared by Mr. Kimbell.

The paper referred to is marked "Complainant's Exhibit 58." Said paper is in the words and figures following to-wit: 4783 For Exhibit 58, see Volume 8, page 5742.

A. I have heretofore given some testimony, and testimony has also been given by others, to show that the increase in the average revenue per ton per mile is not absolute evidence of an increase in rates. That this average could change materially, due to the shifting in the character of the tonnage handled, without any change whatever in the rates.

And that there was a material change in the character of the tonnage handled in January, 1909, as compared with the six months

ending December 31, 1907.

The exhibit now filed as Exhibit 58 is a statement showing the revenue from intrastate freight and passenger traffic, under both current and inhibited rates from November 1, 1908 to December 31, 1909.

The temporary injunction in this case was granted September 3, 1908, and this company put in new rates as early as practicable thereafter; the three cent passenger rate going into effect on October 19, 1908 and the freight tariffs on November 1, 1908.

By reference to this exhibit it will be noticed that for the month of January, 1909, which was the month Judge Hill decided on when he requested me to prepare Exhibit "G," the revenue actually received on the intrastate freight traffic handled in that month was 13916.26.

The application of the inhibited rates to the actual traffic movement for that month showed that the revenue would have been, under the inhibited rates 20,863.89;

4784 The increase is 10,052.37 or 48.18%, which it will be noted is about one-half of the percent which Judge Hill di-

rected me to prepare Exhibit "G" on.

The correct way to determine the percentage of increase in revenue for the six months ending December 31, 1907 had the rates in effect in January, 1909, been in effect during those six months, would be to apply the latter rates to the actual movements for the six months'

period; and figure the increase in the revenue so obtained over the actual revenue.

On account of the magnitude of the task this has not been done. However, under order of the Court this company is keeping a record of the amounts collected under the current freight and passenger tariffs, pending a decision in this case, and by applying the inhibited rates to the actual movement for each month we are able to arrive at the actual revenue increase and the percentage of increase, of the results under the "current" over the "inhibited" rates.

It will be noted that for the month of January, 1909, the per-

centage of increase is 48.18.

Even this percentage is no doubt greater than the percentage would be based on the application of the railroad rates to the actual movement for the six months ended December 31, 1907. I think the percentage Judge Hill should have used was about 48.

Judge HILL:

Q. What I was interested in is something you do not seem to have there, is the relation between state and interstate. Have you anything on that?

A. I do not know that I could induce our management to spend

enough money to make up the interstate on two bases.

Col. MOORE:

Q. Mr. Kimbell, you have a statement there which shows the increase for the six months beginning June, 1909, under the court tariff; that is the time that tariff took effect; as compared with current rates and the inhibited or commission rates.

What is the average increase shown by that statement for six

months?

A. The average increase from June, 1909 to November, 1909, was 29.61%.

Q. And what was the average increase for six months from November 1, 1908, which covered the first six months after the voluntary railroad tariff went into effect?

A. You will notice that is seven months.
 Q. Yes, I see it is.

A. The average increase was 46.83%.

Q. How much is the increase in passenger?

A. The passenger, under the three cent rate from November 1, 1908, to December 31, 1909, a period of 14 months, was 37.20%.

Q. Is there anything else you wish to state in connection with that exhibit?

4786 A. No, sir, I think it is self-explanatory, to a large extent. Q. Have you prepared a statement of loaded trans-state cars moved through the State of Arkansas, for the first 15 days of October, 1908? A. I have, yes, sir.

Q. Will you file that as an exhibit in this case? A. I will.

Col. Moore: I will offer in evidence the statement referred to which was prepared by the witness.

Said statement is marked "Complainant's Exhibit 59."
Said Exhibit is in the words and figures following to-wit:

For Exhibit 59, see Volume -, page -.

4787 Col. Moore: Make any statement you wish in regard to Exhibit 59, Mr. Kimbell.

A. Mr. Hamilton for the state, made an investigation of the time consumed in moving trans-state cars through Arkansas on the Iron Mountain road; but made no investigation on the Cotton Belt.

I have, therefore, prepared a statement of loaded trans-state cars moved through the state of Arkansas for 15 days from October 1st to October 15, 1908, October being the month in which the test of train cost was made by this company; showing the actual time consumed within the state of Arkansas as compared with the scheduled time of trains.

This statement shows a total of 934 cars southbound, of which 433 moved from the Missouri border on the north to the Texas border on the south, a distance of 349 miles and an average of 28.2 hours each, or at an average speed, including all stops en route, of 12.04 miles per hour. While the scheduled time is 25.6 hours or 13.6 miles per hour, including all stops.

114 cars moved from the Missouri border to the Louisiana border, a distance of 344 miles in an average of 30.4 hours each, or at an average speed, including all stops en route, of 11.3 miles per hour; the scheduled time being 25 hours, or 13.6 miles per hour including stops.

40 cars moved from the Missouri border to Stamps, Arkan4788 sas, for delivery to the Louisiana and Arkansas Railway, a distance of 315 miles, in an average of 26.9 hours each; or at
an average speed including all stops en route of 11.7 miles per hour.
While the scheduled time is 22.8 hours or 13.4 miles per hour, including all stops.

120 cars moved from Fair Oaks, a junction for our Memphis freight, to the Texas border, a distance of 246 miles in an average of 19.1 hours each; or at an average speed including all stops en route of 12.9 miles per hour, while the scheduled time is 13.8 miles per

hour, or 12.9 miles per hour including all stops en route.

The item under southbound, reading "from various" "to various", in Exhibit 59 represents 277 cars coming on and going off this line at various junctions; the average time consumed being somewhat less than for the cars heretofore mentioned, which were handled in a practically continuous movement.

The bulk of this movement is lumber from Louisiana and Arkansas Railway at Stamps, destined to and via Texas points; the movement on this line being but 34 miles. And the delay apparently

due to slow local train service.

The northbound movement consists largely of lumber, which is not given a preferential train service according to the southbound trains, much of the latter being of a perishable nature.

This exhibit particularly the outhbound movement, in my judgment, corroborates the testimony of Mr. Doddridge, regarding the movement of trans-state freight over the state.

4789

Q. What was that statement?A. It was, in substance, that it moved without any extra terminal handling in the state, as a general proposition. are exceptions, of course, to it.

Judge HILL:

Q. You have not a bridge on the Cotton Belt? Is that the idea?

Q. Counsel for the state has called your attention to a statement made in your evidence to the effect that October, 1908, the month in which a test was made on your line, would represent relatively the difference between interstate and intrastate traffic: You recall the reference to this which counsel made? Do you wish to make any statement in connection with that?

A. The testimony I gave in direct and cross-examination concerning the test made on this road in 1908 has been frequently quoted by the state in connection with its action in using the figures for October, 1908, in apportioning expenses for a six months' period.

I do not know whether I have been misunderstood in this matter

or not, but I would like to make my position plain.

This test was made for the purpose of determining the cost of the labor and fuel on local and through trains and the relative handling of state and interstate business on each class of train.

As I stated in my direct and also on cross examination it was a very laborious task to make this test, and to cover a period of more than one month would be almost prohibitive, on account of

4790 the labor and expense required to do the work.

I testified in direct examination that so far as this test was concerned it would represent relatively the difference between the two classes of traffic. I also testified on cross examination that I thought for the purpose of a test of that kind, to determine the relative difference between the two classes of freight, one month was perhaps as good as another. And that under almost any conditions, good times or bad times, the relative difference between the two classes of freight would travel uniformly. In other words, if we are going to have poor businss it is going to affect both classes of traffic.

I did not intend to convey the impression, nor do I think the testimony indicates that I did, that the month of October or any other month would fairly represent the character and volume of business

for the period of six months or a year.

One month may reasonably be taken as a guide in determining the relative amount of state and interstate freight handled by the two classes of trains. And for that purpose it would seem, perhaps, that one month is as good as another.

The results of this test are embraced in Exhibit- 19 and 20 as illustrating the relative cost per ton per mile, intrastate and interstate, for wages and fuel, and are not used in any of the other computations included in other exhibits filed by this company.

Q. You ascertained the actual amount of freight carried

4791 on each class of train?

A. Yes, sir.

Q. You did not arrive at the tonnage hauled by the through trains

in the manner used in the exhibits prepared by the state?

A. This test was the actual tonnage handled on both classes of trains, local and through, from the first day of the month to the last,

irrespective of the dates of the waybills.

Q. Mr. Kimbell, have you prepared any exhibits showing what result would be produced by the application of the theories contained in the state's exhibits "R" to "V" inclusive, with modifications on the basis of the testimony of the operating men introduced by your company in this case?

A. Yes, sir, I have.

Q. Will you file that statement?

A. I will.

Col. Moore: We will offer in evidence the statement referred to.

The statement referred to is marked "Complainant's Exhibit 60."

Said Exhibit is in the words and figures following to-wit: For Exhibit 60, see Volume 8, page 5746.

4792 Q. Mr. Kimbell, I have asked Mr. Johnson in detail to explain the changes that were made by him, and I suppose the changes made by you were made in the same way: that is correct, is it not?

A. Yes, substantially so, with one or two minor changes.

Q. And you have sought in the changes you have made to apply the modifications which you think have been shown by the operating men, that should be made in the state's theory?

A. Yes, sir.

Q. I will not ask you to make any detailed explanation of this exhibit, as I understand it will be practically the same as that made by Mr. Johnson in connection with the Iron Mountain exhibits.

By consent the cross-examination of the witnesses R. E. Kimbell, Hubert Roth and F. P. Johnson is deferred until such time as the sur-rebuttal testimony is taken.

